



AGRICULTURAL RESEARCH INSTITUTE
PUSA

CATALOGUE OF BIRDS OF THE AMERICAS AND THE ADJACENT ISLANDS

IN
FIELD MUSEUM OF NATURAL HISTORY

INCLUDING ALL SPECIES AND SUBSPECIES KNOWN TO OCCUR IN NORTH AMERICA,
MEXICO, CENTRAL AMERICA, SOUTH AMERICA, THE WEST INDIES, AND
ISLANDS OF THE CARIBBEAN SEA, THE GALAPAGOS ARCHIPELAGO
AND OTHER ISLANDS WHICH MAY BE INCLUDED ON
ACCOUNT OF THEIR FAUNAL AFFINITIES

BY
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AND
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PART I, NUMBER 1

RHEIDAE - TINAMIDAE - CRACIDAE - TETRAONIDAE - PHASIANIDAE
NUMIDAE - MELEAGRIDAE - OPISTHOCOMIDAE - GRUIDAE
ARAMIDAE - PSOPHIIDAE - RALLIDAE - HELIORNITHIDAE
EURYPYGIDAE - CARIAMIDAE - COLUMBIDAE



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PREFACE TO PART I, NUMBER 1

The present installment of Part I, which, according to the original plan of the late Charles B. Cory, was to be published at the end of the series, does not call for much comment in the way of explanation, for in style and arrangement it closely follows the guiding principles of the previous parts.

It remains, however, to say a few words about the method of collaboration, which resulted in the production of this volume. The senior author, who, in the main, is responsible for the compilation of the bibliographic references and for the outline of geographical distribution, had the advantage of studying the material in European collections, rich in types of the earlier writers. In many cases, where the determination of local or individual variation was involved, the long series, notably from Central America, in the British Museum (Natural History) have been carefully worked over. The manuscript was then submitted to Boardman Conover, who checked the conclusions on the basis of his own material and that in Field Museum, and furthermore settled disputed points by the examination of types and critical specimens in other American collections. The copy thus corrected and completed was again forwarded to Charles E. Hellmayr for final revision. In the case of North American and certain Central American species, it was the junior author who supplied the manuscript which subsequently underwent similar treatment at the hands of the senior author. In this way an unusual amount of material passed through the authors' hands, and more type specimens have been critically examined than has been the case in the preparation of any of the preceding parts. It is hoped that the results thus obtained will prove to be fairly reliable, although it must once more be emphasized that the authors did not intend writing a monograph of the groups here treated.

All references have been personally checked by one or both authors except when otherwise stated.

The lists of specimens in Field Museum and in the Conover Collection have been compiled by the junior author. Literature has been taken into account up to December 31, 1939. Some new forms, described since that date, will be found mentioned in the footnotes.

In the course of their studies, the authors had the benefit of cordial co-operation either by the loan of material or the supply of information from many institutions and individuals, to all of whom

they beg to express their grateful appreciation. Among those who thus helped to facilitate their task, should especially be mentioned: John W. Aldrich, formerly of the Cleveland Museum of Natural History; Alfred M. Bailey, Colorado Museum of Natural History, Denver; J. Berlioz, Musée d'Histoire Naturelle, Paris; Pierce Brodkorb, Museum of Zoology, University of Michigan, Ann Arbor; Major Allan Brooks, Okanagan Landing, B.C.; the Chicago Academy of Sciences; the late J. H. Fleming, Toronto, Ontario; Herbert Friedmann, United States National Museum; Professor O. Fuhrmann, University of Neuchâtel; Major Edward A. Goldman, United States Fish and Wildlife Service; the late Joseph Grinnell, University of California; Count Nils Gyldenstolpe, Vetenskapsakademien, Stockholm; Captain N. B. Kinnear, British Museum (Natural History), London; A. Laubmann, Zoological Museum, Munich; James Moffitt, California Academy of Sciences, San Francisco; H. C. Oberholser, formerly of the United States Fish and Wildlife Service; James L. Peters, Museum of Comparative Zoology, Cambridge, Massachusetts; R. M. de Schauensee, Academy of Natural Sciences, Philadelphia; Count Josef Seilern, Lukov; L. L. Snyder, Royal Ontario Museum, Toronto; E. Stresemann, Zoological Museum, Berlin; P. A. Taverner, National Museum of Canada, Ottawa; W. E. Clyde Todd, Carnegie Museum, Pittsburgh; University of Toronto; A. J. van Rossem, formerly of the California Institute of Technology, Pasadena; John T. Zimmer, American Museum of Natural History, New York.

Especially acknowledgment is made to Rudyerd Boulton and Emmet R. Blake of the staff of Field Museum for continued assistance.

CHARLES E. HELLMAYR

BOARDMAN CONOVER

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CATALOGUE

OF

BIRDS OF THE AMERICAS

PART I

NO. 1

BY CHARLES E. HELLMAYR AND BOARDMAN CONOVER

Order RHEIFORMES

Family RHEIDAE. Rheas

Genus RHEA Brisson

Rhea Brisson, Orn., 1, p. 46; 5, p. 8, 1760—type, by monotypy and tautonymy, “*Rhea*” = *Struthio americanus* Linnaeus.

Touyou Lacépède, Tabl. Méth. Mammif. Ois., p. 20, late in 1799; idem, in Daudin, Traité Elém. Compl. Orn., 1, p. 438, 1800—type not indicated, but, according to generic characters, obviously *Struthio americanus* Linnaeus.

Tuyus Rafinesque, Anal. Nat., p. 70, 1815—new name for *Rhea* “L.” [=Brisson].

**Rhea americana americana* (Linnaeus).¹ AMERICAN RHEA.

Struthio americanus Linnaeus, Syst. Nat., 10th ed., 1, p. 155, 1758—based exclusively on “*Nhanduguaçu*” Marcgrave, Hist. Nat. Bras., p. 190; Sergipe and Rio Grande [do Norte], Brazil.

Struthio Rhea Linnaeus, Syst. Nat., 12th ed., 1, p. 266, 1766—chiefly based on “*Nhanduguaçu*” Marcgrave.

¹ Two new races have been described recently:

(a) *Rhea americana araneipes* Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 367, pp. 1–2, April 5, 1938—192–200 kilometers west of Puerto Casado, Paraguay (type in the Museum of Zoology, University of Michigan, Ann Arbor). This form is said to resemble *Rhea americana albescens* in coloration, but to be of larger size, tarsus of males 351–354 and of females 344–370 mm. It is supposed to range from southern Matto Grosso (Descalvados) to the northern part of the Paraguayan Chaco.

(b) *Rhea americana nobilis* Brodkorb, Proc. Biol. Soc. Wash., 52, p. 138, Oct. 11, 1939—40 kilometers west-southwest of Capitán Bado, eastern Paraguay (type in the Museum of Zoology, University of Michigan, Ann Arbor). The characters are designated as large size (tarsus 342–366 mm.), interscapular region dark brown, lower half of neck jet black, upper half orange-cinnamon, flanks vinaceous cinnamon to pinkish buff.

The range is said to be Paraguay, east of the Rio Paraguay.

Rhea americana Wied, Reise Bras., 2, p. 187 (8vo ed., p. 186), 1821—Fazenda Valo, near the Minas border, Bahia; Lichtenstein, Verz. Doubl. Berliner Mus., p. 69, 1823—São Paulo; Wied, Beitr. Naturg. Bras., 3, (2), p. 559, 1833—same locality; Burmeister, Syst. Uebers. Th. Bras., 3, p. 352, 1856—part, Minas Geraes (Sabará, Santa Lucia, Lagõa Santa); Des Murs, in Castelnau, Expéd. Amér. Sud, Zool., 1, Ois., p. 94, 1856—Rio Mondego, below Miranda, Matto Grosso; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 46—Minas Geraes (Lagõa Santa; Curvelho; Taboleiro Grande; Andrequecé, Rio São Francisco); Pelzeln, Orn. Bras., 3, p. 295, 1870—São Paulo (Itararé) and Matto Grosso (Cuyabá, Caiçara); Allen, Bull. Amer. Mus. N. H., 5, p. 152, 1893—Chapada, Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 465, 1899—between Piracicaba and Rio Claro, São Paulo (crit.); idem, Cat. Faun. Braz., 1, p. 1, 1907—São Paulo (hab. Brazil excl. of Rio Grande do Sul); Baer, Nov. Zool., 15, p. 14, 1908—Rio Uruhú, Goyáz.

Rhea nandua Temminck, Nouv. Rec. Pl. Col., livr. 40, text to pl. 237, fig. 2, 1823—new name for *Struthio americanus* Linnaeus.

Rhea nandu Lesson, Man. d'Orn., 2, p. 208, June, 1828—new name for *Struthio rhea* Linnaeus.

Rhea macrorhyncha Sclater, Proc. Zool. Soc. Lond., 28, p. 207, 1860—hab. ign. (type now in the British Museum); idem, Trans. Zool. Soc. Lond., 4, p. 356, pl. 69, 1862 (fig. of type); Forbes, Ibis, 1881, p. 360—Pernambuco (Aguas Bellas; falls of the São Francisco River) and Parahyba (Pianco); Salvadori, Cat. Bds. Brit. Mus., 27, p. 581, 1895—Brazil; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 98, 1910—Joazeiro, Bahia.

Rhea americana macrorhyncha Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 249, 1934—Piauhy (Apertada Hora, Santo Antonio de Gilbúes, Grotão).

Rhea americana subsp. Naumburg, Bull. Amer. Mus. N. H., 60, p. 55, 1930—Matto Grosso.

Rhea americana americana Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 500, 1929—Piauhy; Peters, Bds. World, 1, p. 4, 1931 (range).

Rhea americana albescens (not of Arribáizaga and Holmberg) Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 364, 1934—Descalvados, Matto Grosso.

Range.—Campo region of Brazil, from Piauhy and Rio Grande do Norte south to São Paulo and Matto Grosso.¹

Field Museum Collection.—4: Brazil (Fazenda Capão Bonita, Vaccaria, Matto Grosso, 4).

¹Two adults from Itararé (São Paulo) and Cuyabá (Matto Grosso), while approaching *intermedia* by their buffier lower neck, have the short middle toe and claw (115–120 mm.), deep black crown, and dusky brown interscapular region of northern specimens, and, considering the scanty available material, we are, at present, not prepared to separate them. It will be noticed that Stone and Roberts record much larger measurements for two adult females from Descalvados, which they refer to the Argentine form.

Additional material examined.—Brazil: Joazeiro, Bahia, 2; Pernambuco, 1; Cuyabá, Matto Grosso, 1; Villa Bella de Matto Grosso, 2; Itararé, São Paulo, 1.

****Rhea americana intermedia* Rothschild and Chubb.¹ INTERMEDIATE RHEA.**

Rhea americana intermedia Rothschild and Chubb, Nov. Zool., **21**, p. 223, June, 1914—Barra San Juan, Colonia, Uruguay (type in coll. of Duke of Orléans, now in Paris Museum); Tremoleras, El Hornero, **4**, p. 20, 1927—Uruguay; Peters, Bds. World, **1**, p. 4, 1931 (range).

Rhea americana (not *Struthio americanus* Linnaeus) Burmeister, Syst. Uebers. Th. Bras., **3**, p. 352, 1856—part, Montevideo; Dalglish, Proc. Roy. Phys. Soc. Edin., **6**, p. 251, 1881—Est. de la Tala, Durazno, Uruguay (nest and eggs descr.); Gibson, Ibis, 1885, p. 283—Paysandú, Uruguay; Aplin, Ibis, 1894, p. 214—Santa Elena, Uruguay; Salvadori, Cat. Bds. Brit. Mus., **27**, p. 578, 1895—part, Rio Grande do Sul; Ihering, Anuario Est. Rio Grande do Sul, **16**, p. 154, 1899—Pedras Brancas and Barra do Rio Camaquã, Rio Grande do Sul; idem, Cat. Faun. Braz., **1**, p. 1, 1907—part, Rio Grande do Sul and Uruguay.

Rhea americana rothschildi (not of Brabourne and Chubb) Tremoleras, El Hornero, **2**, p. 10, 1920—Uruguay (San José, Flores, Minas, Maldonado, Treinta y Tres, Cerro Largo, Florida, Rocha).

Range.—Extreme southern Brazil (Rio Grande do Sul) and Uruguay.

Field Museum Collection.—2: Uruguay (Passo Correntino, Rio Negro, 1; San Vicente de Castillos, 1).

****Rhea americana albescens* Arribáizaga and Holmberg.² ARGENTINE RHEA.**

Rhea albescens Arribáizaga and Holmberg, El Naturalista Argentino, **1**, p. 101, April, 1878—Carhué, Prov. Buenos Aires (descr. of albinistic specimens; no type extant).

Rhea americana (not *Struthio americanus* Linnaeus) Darwin, Proc. Zool. Soc. Lond., **5**, p. 35, 1837—La Plata to Bahía Blanca (habits); idem, Zool. Beagle, **3**, Birds, p. 120, 1841—plains of La Plata, south to 42° and 43° lat. south, west to Uspallata plain, Mendoza (habits); Burmeister, Journ. Orn., **8**, p. 260, 1860—Buenos Aires to Mendoza; idem, Reise La Plata St., **2**, p. 500, 1861—Argentina; Sclater, Trans. Zool. Soc. Lond., **4**, p. 355, pl. 68, 1862 (crit.); Boecking, Arch. Naturg., **29**, (1), p. 213, 1863—Argentina (habits, hunting, etc.); Doering, Period. Zool., **1**, p. 255, 1874—Rio Guayquiraró, Corrientes; Gibson, Ibis, 1880, p. 167—Cape San

¹ *Rhea americana intermedia* Rothschild and Chubb: Similar to *R. a. americana*, but crown more sooty, less black; interscapular region mostly gray, hardly streaked with dusky, and lower foreneck strongly tinged with buffy.

A single adult from Rio Grande do Sul (Pedras Brancas) examined. It is quite possible that the range of this little-known race extends into the adjacent parts of Argentina (Corrientes and Entre Ríos), whence material has never been critically studied.

² *Rhea americana albescens* Arribáizaga and Holmberg: Differs from the two preceding races by black interscapular region, greater extent of black on the neck, and longer tarsus.

The range, as given here, is purely tentative, series of adult birds from different parts having never been critically studied.

Antonio, Buenos Aires; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 58, 1881—Sierra de Curumulan, Buenos Aires; Barrows, Auk, 1, p. 318, 1884—Concepción del Uruguay, Entre Ríos (semi-domesticated), and Puan, Buenos Aires; Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 245, 1888—Arroyo Valcheta, Rio Negro; Sclater and Hudson, Arg. Orn., 2, p. 216, 1889—Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 404, 1890—Córdoba; Kerr, Ibis, 1892, p. 151—lower Pilcomayo; Holland, Ibis, 1892, p. 214—Est. Espar-tillar, Buenos Aires (habits); Salvadori, Cat. Bds. Brit. Mus., 27, p. 578, 1895—part, Bolivia, Argentina, and Paraguay; Kerr, Ibis, 1901, p. 236—Chaco Paraguay (between Carayá Vuelta and Riacho Verde); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 219, 1902—campos of Tucumán; Lönnberg, Ibis, 1903, p. 458—Tataranda, Tarija, Bolivian Chaco; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, (1), p. 2, 1904—part, Argentina; Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 72, 1905—Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 184, 1910 (range in Argentina); Grant, Ibis, 1911, p. 478—Luiconia and Los Ynglases, Ajó, Buenos Aires; Reed, Av. Prov. Mendoza, p. 16, 1916—Mendoza; Gibson, Ibis, 1920, p. 91—Cape San Antonio, Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 23, 1926—Paraguayan Chaco, Formosa (Riacho Pilaga), Buenos Aires (Bahia Blanca), and Neuquén (Zapala); Friedmann, Bull. Mus. Comp. Zool., 68, p. 142, 1927—Entre Ríos (Santa Elena), Córdoba (near Córdoba City), Tucumán (San Pablo), and Santa Fé (La Noria).

[*Rhea americana*] var. *albinea* Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 58 (in text), 1881—new name for *Rhea albescens* Arribáizaga and Holmberg.

Rhea rothschildi Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 8, p. 273, Aug., 1911—Los Ynglases, Ajó, Buenos Aires (type in British Museum).

Rhea americana rothschildi Rothschild and Chubb, Nov. Zool., 21, p. 223, 1914 (char.); Marelli, El Hornero, 1, p. 75, 1918—Curuzú-Cuatiá, Corrientes (domesticated); Sanzin, l.c., 1, p. 147, 1918—Mendoza; Dabbene, l.c., 2, p. 83, 1920 (range in Argentina); Daguerre, l.c., 2, p. 259, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 38, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 82, 1923—La Rioja; Marelli, Mem. Min. Obr. Publ. for 1922–23, p. 597, 1924—Prov. Buenos Aires; Wilson, El Hornero, 3, p. 350, 1926—Venado Tuerto, Santa Fé; Marelli, l.c., 5, p. 193, 1933—Arroyo Pareja, Buenos Aires.

Rhea americana albescens Hudson, El Hornero, 4, p. 53, 1927 (habits); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 43, 1930—Mission Tacaaglé, Formosa; Peters, Bds. World, 1, p. 4, 1931 (range); Krieg, Journ. Orn., 82, p. 107, 1934—Est. La Geraldina, Santa Fé (habits); Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 129, 1935—Monte Veloz, Buenos Aires (bibliog., rangé).

Range.—Argentina, from the Andes and the Bolivian border south to the Rio Negro, and western Paraguay (Chaco).

Field Museum Collection.—13: Paraguay (195 km. west of Puerto Casado, 2); Argentina (Concepción, Tucumán, 1; Buenos Aires, 10).

Genus **PTEROCNEMIA** G. R. Gray

Pterocnemia G. R. Gray, Hand List Bds. Brit. Mus., 3, p. 2, 1871—type, by monotypy, *Rhea darwini* Gould=*Rhea pennata* d'Orbigny.

Pterocnemis Sclater and Salvin, Nomencl. Av. Neotrop., p. 154, 1873 (emendation).

Pterocnemia pennata garleppi Chubb.¹ GARLEPP'S RHEA.

Pterocnemia tarapacensis garleppi Chubb, Bull. Brit. Orn. Cl., 33, p. 79, Dec. 23, 1913—Esperanza [Oruro], Bolivia (type in Tring Collection); Dabbene, El Hornero, 1, p. 259, 1919—Pasto Ventura, Cerro Nevado, puna of Catamarca; idem, l.c., 2, p. 84, 1920 (range); Boman, l.c., 2, p. 140, 1920—puna of Catamarca (display).

Rhea darwini (not of Gould) Berlepsch and Stolzmann, Orn. 13, pp. 64, 130, 1906—Titiri (alt. 16,000 ft.), southern Puno, Peru.

Pterocnemia pennata garleppi Peters, Bds. World, 1, p. 5, 1931 (range); Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 133, 1935—Catamarca (Pasto Ventura) and Los Andes (Acaí).

Range.—Puna zone of extreme southeastern Peru (Titiri, Puno), Bolivia (Esperanza and Sajama, Dept. Oruro), and northwestern Argentina (Pasto Ventura, Cerro Nevado, Catamarca; Acaí, Los Andes).

Pterocnemia pennata tarapacensis Chubb.² TARAPACÁ RHEA.

Pterocnemia tarapacensis Chubb, Bull. Brit. Orn. Cl., 33, p. 79, Dec. 23, 1913—"Canchosa," Tarapacá, Chile (type in the British Museum).

Rhea americana (not *Struthio americanus* Linnaeus) Tschudi, Faun. Peru., Orn., p. 293, 1846—"north of Arica" (from hearsay); Taczanowski, Orn. Per., 3, p. 500, 1886 (ex Tschudi).

Rhea darwini (not of Gould) Philippi, Orn. 4, p. 159, 1888—Atacama; Sclater, Proc. Zool. Soc. Lond., 1890, p. 412—Tarapacá; idem, l.c., 1891, p. 137—"Canchosa," Tarapacá; Salvadori, Cat. Bds. Brit. Mus., 27, p. 582, 1895—part, spec. h-l, "Canchosa," Tarapacá; Reed, Anal. Univ. Chile, 93, p. 213, 1896—part, Tarapacá; Lane, Ibis, 1897, p. 316—Canchosa, Tarapacá.

Pterocnemia pennata tarapacensis Peters, Bds. World, 1, p. 5, 1931 (range).

Pterocnemia tarapacensis tarapacensis Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 428, 1932—puna zone of northern Chile (crit.).

¹ *Pterocnemia pennata garleppi* Chubb is said to differ from the next form by isabelline-buff (instead of ashy-gray) head and neck, and grayish brown (not rufous-brown) back, but its distinctness is doubtful in view of the considerable individual variation observable in a series of nearly thirty specimens; but direct comparison with *tarapacensis* could not be made.

² *Pterocnemia pennata tarapacensis* Chubb, together with the preceding race, may be distinguished from the Patagonian rhea by the smaller number of scutes (eight to ten instead of sixteen to eighteen) on the lower portion of the tarsus. Besides, the dorsal surface is much more brownish, with fewer, if any, white feathers interspersed.

Material examined.—Bolivia, Oruro: Sajama, 19; Esperanza, 6.

Range.—Puna zone of northern Chile, in provinces of Atacama, Antofagasta, and Tarapacá.

***Pterocnemias pennata pennata* (d'Orbigny). DARWIN'S RHEA.**

Rhea pennata d'Orbigny, Voy. Amér. Mérid., 2, pp. 67 (note), 212, 1834—lower Rio Negro, southern Buenos Aires (no type in existence).

Rhea darwini(i) Gould, Proc. Zool. Soc. Lond., 5, p. 35, Nov. 21, 1837—Port Desire, Patagonia (type formerly in coll. of Zoological Society of London); idem, in Darwin, Zool. Beagle, 3, Birds, p. 123, pl. 47, 1841—Rio Negro to the Straits of Magellan; Selater, Trans. Zool. Soc. Lond., 4, p. 357, pl. 70, 1862; Philippi, Anal. Univ. Chile, 31, p. 270, 1868—"Mendoza"; Hudson, Proc. Zool. Soc. Lond., 1872, pp. 534, 535—Rio Negro (habits); Durnford, Ibis, 1877, p. 46—Chubut Valley; idem, Ibis, 1878, p. 406—Chubut Valley (nest and eggs descr.); Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 58, 1881—Rio Negro and southward; Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 319, 1889—Rio Chico del Chubut; Selater and Hudson, Arg. Orn., 2, p. 219, 1889 (habits); Oustalet, Miss. Scient. Cap Horn, 6, p. B.247, 1891—Santa Cruz, Misioneres, and Cerro de la Picane, Santa Cruz, Patagonia; Salvadori, Cat. Bds. Brit. Mus., 27, p. 582, 1895—part, Patagonia and Argentina; Schallow, Zool. Jahrb., Suppl., 4, p. 646, 1898—Punta Arenas; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, (1), p. 8, 1904—Coy Inlet, Patagonia, and Valle del Lago Blanco, Chubut; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 185, 1910 (range); Reed, Av. Prov. Mendoza, p. 5, 1916—Cerro Pelado and Puente del Inca, Mendoza.

Pterocnemias pennata Chubb, Bull. Brit. Orn. Cl., 33, p. 80, 1913 (crit.); Dabbene, El Hornero, 2, p. 84, 1920 (range); Peters, Bull. Mus. Comp. Zool., 65, p. 285, 1923—Maquinchao and Huanuluan, Rio Negro (breeding); Wetmore, Bull. U. S. Nat. Mus., 133, p. 27, 1926—Zapala, western Neuquén; idem, Univ. Calif. Pub. Zool., 24, p. 409, 1926—Rio Negro (Arroyo Trineta, Arroyo Cumallo, Laguna Crockett) and Santa Cruz (Lago San Martín).

Pterocnemias pennata pennata Peters, Bds. World, 1, p. 5, 1931 (range); Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 132, 1935 (synon., range).

Range.—Southern Argentina from the Rio Negro to the Straits of Magellan (also recorded from Mendoza, but probably semi-domesticated).

Order TINAMIFORMES

Family TINAMIDAE. Tinamous

Genus TINAMUS Hermann

Tinamus Hermann,¹ Tabl. Aff. Anim., pp. 164, 235, 1783—based on "Les Tinamous" Buffon (Hist. Nat. Ois., 4, p. 502, 1778); type, by subs. desig.

¹*Tinamus*, though universally credited to Latham (Ind. Orn., 2, p. 633, 1790), was already proposed by Hermann for Buffon's "Les Tinamous," comprising the four species listed by Latham. Apstein appears to have been the first

- (Apstein, Sitzungsab. Ges. Naturf. Freunde Berlin, 1915, p. 197), *Tetrao major* Gmelin [= "Le Magoua" Buffon].
- Crypturus* Illiger, Prodr. Syst. Mamm. Av., p. 244, 1811—substitute name for *Tinamus* "Latham" (cf. Oberholser, Proc. Biol. Soc. Wash., 35, pp. 73–74, 1922).
- Cryptura* Vieillot, Anal. Nouv. Orn. Elém., p. 52, 1816—type, by subs. desig. (Salvadori, Cat. Bds. Brit. Mus., 27, p. 496, 1895), ["Tinamou Magoua" Buffon=] *Tetrao major* Gmelin.
- Pezus* Spix, Av. Spec. Nov. Bras., 2, p. 61, 1825—type, by present desig.,¹ *Pezus serratus* Spix.
- Trachypelmus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 749, 1849—type, by subs. desig. (Salvadori, Cat. Bds. Brit. Mus., 27, p. 496, 1895), [*Trachypelmus subcristatus* Cabanis=] *Tetrao major* Gmelin.
- Trachypelma* Giebel, Thes. Orn., 3, p. 648, 1877—emendation of *Trachypelmus* Cabanis.

****Tinamus tao tao* Temminck. GREAT GRAY TINAMOU.**

Tinamus tao Temminck, Hist. Nat. Pig. Gall., 3, pp. 569, 749, 1815—"dans la province de Pará, au Brésil" (type in Berlin Museum);² Pelzeln, Orn. Bras., 3, p. 290, 1870—Cidade de Matto Grosso, Rio Guaporé, and Borba, Rio Madeira, Brazil; Sclater and Salvin, Nomencl. Av. Neotr., p. 152, 1873—part, Amazonia; Riker and Chapman, Auk, 8, p. 163, 1891—Diamantina, near Santarém, Brazil; Salvadori, Cat. Bds. Brit. Mus., 27, p. 497, 1895—part, Amazonas; Ihering, Cat. Faun. Braz., 1, p. 4, 1907—part, Matto Grosso, Borba, "Pará," and Amazonia; Hellmayr, Nov. Zool., 17, p. 418, 1910—Jamarysinho, Rio Machados; Sneath, Bol. Mus. Goeldi, 8, p. 46, 1914—Cussary, south bank of lower Amazon, Brazil.

Crypturus canus Wagler, Isis, 1829, p. 746—"in Brasiliæ prov. Pará" (type in Berlin Museum).³

Tinamus tao tao Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 12, p. 577, 1913 (diag.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 57, 1930—Matto Grosso (ex Pelzeln); Peters, Bds. World, 1, p. 12, 1931 (range).

Range.—Brazil south of the Amazon, from the Rio Madeira east to the Rio Tapajóz, south to western Matto Grosso (Villa Bella de Matto Grosso, Rio Guapore).⁴

to select a genotype for *Tinamus* Hermann. Fortunately, it is the same species as the one designated by G. R. Gray (List Gen. Bds., p. 63, 1840) as genotype of *Tinamus* Latham, viz., *Tetrao major* Gmelin.

¹ Salvadori (Cat. Bds. Brit. Mus., 27, p. 496, 1895) designates *Tetrao major* Gmelin, a species originally not contained in the genus.

² Temminck's account is practically based upon the description communicated by Illiger of the specimen received at Berlin from Count Hoffmannsegg. The type is still in the Berlin Museum (cf. Schlegel, Mus. Pays-Bas, 8, Tinami, p. 8, 1880). Azara's "Mocoicogoé," doubtfully quoted by Temminck, refers, of course, to *T. solitarius*.

³ Based on the very same specimen which served as type of *T. tao*.

⁴ Additional material examined.—Brazil: Rio Tapajóz, 4; Borba, Rio Madeira, 2; Jamarysinho, Rio Machados, 2; Villa Bella, Matto Grosso, 1.

Conover Collection.—8: Brazil (Caxiricatuba, Rio Tapajóz, 4; Boim, Rio Tapajóz, 1; Pinhel, Rio Tapajóz, 3).

****Tinamus tao weddelli* Bonaparte.¹ WEDDELL'S TINAMOU.**

Tinamus weddelli Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, pp. 881, 954, 1856—"forêts vierges de La Paz en Bolivie"; idem, Tabl. Parall. Ordre . Gallin., p. 15, 1856—"forêts vierges de la vallée de Tipuani,² province de la Paz en Bolivie" (full descr.; type in Paris Museum examined).

Tinamus tao (not of Temminck) Salvadori, Cat. Bds. Brit. Mus., 27, p. 497, 1895—part, Bolivia; Ihering, Cat. Faun. Braz., 1, p. 4, 1907—part, Bolivia.

Tinamus tao weddelli Chubb, Ibis, 1919, p. 6—San Ernesto, upper Rio Beni, Bolivia (crit.); Peters, Bds. World, 1, p. 12, 1931—Bolivia.

Range.—Tropical zone of eastern Bolivia (Tipuani, La Paz; San Ernesto, upper Rio Beni; Cerro Hosane and Cerro del Amberi, Santa Cruz).

Conover Collection.—1: Bolivia (Cerro Hosane, Santa Cruz, 1).

****Tinamus tao kleei* (Tschudi).³ KLEE'S TINAMOU.**

Crypturus kleei Tschudi, Arch. Naturg., 9, (1), p. 387, 1843—"apud flumen Chanchamayo et in Chunchotambo," Dept. Junín, Peru (type in Neuchâtel Museum); idem, l.c., 10, (1), p. 308, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 284, pl. 32, 1846—Peru.

¹ *Tinamus tao weddelli* Bonaparte: Very similar to *T. t. kleei*, especially on the lower surface; but upper parts grayer, less brownish and less heavily barred with black, these differences being particularly noticeable on the wing coverts, and lower neck and upper chest rather lighter and grayer.

Bolivian birds are, in fact, somewhat intermediate to typical *tao*, though nearer to *T. t. kleei*.

Additional material examined.—Bolivia: Tipuani Valley, La Paz, 1 (the type); San Ernesto, upper Rio Beni, 1; Cerro Hosane, 2; Cerro del Amberi, Santa Cruz, 1.

² Tipuani lies southeast of Mapiri in the tropical forests at the Amazonian foot of the Cordillera of La Paz.

³ *Tinamus tao kleei* (Tschudi) differs from the nominate race by being above and on the chest distinctly washed with dark brownish (instead of clear bluish gray) and by the tendency to heavier, dusky barring on the lower abdomen and flanks.

The racial characters are most strongly pronounced in the birds from Pozúzo, Huánuco. Two skins from eastern Ecuador are like the Peruvian ones.

Tinamus blasiusi Dubois (Mém. Soc. Zool. France, 7, p. 404, 1894), from Peru, published as it is without any description, can at best be regarded as a new name for *C. kleei* Tschudi. The bird mentioned by Dubois, however, most certainly was not the one described as *Tinamus* (without specific name) by Bonaparte (Compt. Rend. Acad. Sci. Paris, 43, p. 573, 1856), and said to have been sent by Martini from "Chili" to the Brussels Museum.

Additional material examined.—Peru: Pozúzo, Huánuco, 3; Chanchamayo, Junín, 2; La Gloria, Vitoc, Junín, 2; Rio San Miguel, Urubamba, 2; Rio Cosireni, Urubamba, 1; Rio Comerciato, Urubamba, 1.

Tinamus kleei Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 563—Monterico, Peru; idem, l.c., 1882, p. 3—Huambo, Peru; idem, Orn. Pér., 3, p. 293, 1886—Peru (Monterico, Huambo).

Tinamus tao (not of Temminck) Salvadori, Cat. Bds. Brit. Mus., 27, p. 497, 1895—part, Peru; idem and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 51, 1900—San José, eastern Ecuador; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 46—La Gloria, Vitoc, Peru; Ihering, Cat. Faun. Braz., 1, p. 4, 1907—part, Peru; Chapman, Bull. U. S. Nat. Mus., 115, p. 42, 1921—Rio Comerciato, Rio Cosireni, and Rio San Miguel, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 145, 1926—San José, Ecuador (ex Salvadori and Festa).

Tinamus tao kleei Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 12, p. 577, 1913 (crit.); Peters, Bds. World, 1, p. 12, 1931—eastern Peru and Ecuador.

Range.—Tropical zone of eastern Peru (Urubamba region; Monterico, Ayacucho; Chanchamayo and La Gloria, Vitoc, Junín; Pozúzo, Huánuco; Huambo, San Martín) and eastern Ecuador (San José, Cutucu).

Conover Collection.—3: Peru (Rio Urubamba, 1); Ecuador (Cutucu, 2).

****Tinamus tao septentrionalis* Brabourne and Chubb.¹ NORTH-EASTERN GRAY TINAMOU.**

Tinamus tao septentrionalis Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 12, p. 578, Dec., 1913—plains of Cumaná, northeastern Venezuela (type in Tring Collection, now in the American Museum of Natural History, New York); Chubb, Bds. Brit. Guiana, 1, p. 2, 1916—Aremu River; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 24, 1922—La Azulita, Mérida, and Maracay, Aragua, Venezuela (crit.); Peters, Bds. World, 1, p. 12, 1931 (range).

Tinamus canus (not *Crypturus canus* Wagler) Sclater, Proc. Zool. Soc. Lond., 25, p. 20, 1857—Bogotá.

Trachypelmus canus Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 303, 1890—Puerto Cabello, Venezuela.

Tinamus tao (not of Temminck) Sclater and Salvin, Nomencl. Av. Neotr., p. 152, 1873—part, Guiana, Venezuela, and Colombia; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 497, 1880—part, Nouvelle Grenade; Salvadori, Cat. Bds. Brit. Mus., 27, p. 497, 1895—Venezuela (San Esteban) and Bogotá; Beebe, Zoologica (N.Y.), 1, p. 71, 1909—Guanoco, Orinoco Delta, Venezuela; idem, Our Search for a Wilderness, pp. 321, 389, 1910—Aremu River, British Guiana (seen); Hellmayr and Seilern, Arch.

¹ *Tinamus tao septentrionalis* Brabourne and Chubb: Similar to the nominate race, but upper parts strongly tinged with olivaceous (instead of clear slate gray) and less broadly banded with black, especially anteriorly; abdomen more buffy.

A single Bogotá skin appears to agree with one from San Esteban, Venezuela. The status of the inhabitants of the west Colombian Andes, whence a single example has been recorded from San Antonio, remains to be determined.

Naturg., 78, A, Heft 5, p. 166, 1912—San Esteban, Venezuela; (?)Chapman, Bull. Amer. Mus. N. H., 36, p. 187, 1917—San Antonio, western Andes, Colombia.

Range.—Tropical zone of British Guiana, northern Venezuela (Cumaná; Maracay, Aragua; San Esteban, Carabobo; La Azulita, Mérida), and Colombia (native Bogotá collections; (?)San Antonio, western Andes).

Field Museum Collection.—1: Venezuela (Maracay, Aragua, 1).

Conover Collection.—1: Venezuela (La Azulita, Mérida, 1).

****Tinamus solitarius* (Vieillot).¹ SOLITARY TINAMOU.**

Cryptura solitaria Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 105, 1819—based on "Mocoicogóé" Azara, No. 332; Paraguay.

Tinamus brasiliensis (not of Latham) Wied, Reise Bras., 1, p. 256 (8vo ed., p. 254), 1820—Morro d'Arára, Rio Mucuri; idem, l.c., 2, 'pp. 124, 135, 1821—near São Pedro d'Alcantara, southern Bahia; idem, Beitr. Naturg. Bras., 4, (2), p. 496, 1833—southeastern Brazil; Euler, Journ. Orn., 15, pp. 190, 196, 198, 1867—Cantagallo, Rio de Janeiro (breeding habits).

Crypturus tao (not *Tinamus tao* Temminck) Lichtenstein, Verz. Doubl. Berliner Mus., p. 67, 1823—São Paulo (descr.); Wagler, Syst. Av., 1, fol. 19, sp. 1, 1827—Paraguay and Brazil (monog.).

Trachypelmus tao Burmeister, Syst. Uebers. Th. Bras., 3, p. 324, 1856—São Paulo, southern Minas, Santa Catharina, "Montevideo" (errore), and Paraguay.

Tinamus major (not of Gmelin) Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 50—Minas Geraes.

Tinamus solitarius Pelzeln, Orn. Bras., 3, p. 290, 1870—Rio de Janeiro (Corcovado) and São Paulo (Serra do Capivari, near Mattodentro; Ypanemá, Ytararé); Sclater and Salvin, Nomencl. Av. Neotr., p. 152, 1873—Brazil and Paraguay; Berlepsch, Journ. Orn., 22, p. 251, 1874—Blumenau, Santa Catharina; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 10, 1880—Rio de Janeiro, Itararé, and São Paulo (monog.); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 182, 1885—Arroio Grande, Rio Grande do Sul; Salvadori, Cat. Bds. Brit. Mus., 27, p. 501, pl. 7, 1895—Rio Paraná, São Paulo, and Rio de Janeiro; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 153, 1899—forest of the coast ranges of Rio Grande do Sul to 30° south lat.; idem, Rev. Mus. Paul., 3, p. 458, 1899—São Paulo; idem, l.c., 4, p. 164, 1900—Cantagallo; Bertoni, Anal. Cient. Parag., 1, p. 23, 1901—Alto Paraná, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 4, 1907—São Paulo (São Sebastião, Baurú, Santos) and Santa Catharina; Chubb, Ibis,

¹ *Tinamus solitarius* (Vieillot) is probably conspecific with the *T. major* complex.

Miranda-Ribeiro (Rev. Mus. Paul., 23, p. 738, 1938) recently separated *T. s. farinosus* (Serra de Friburgo, Rio de Janeiro) and *T. s. organorum* (Serra dos Orgãos, Rio de Janeiro). A third name, *T. s. nattereri*, proposed by the same author for a bird from Santa Catharina (Humboldt) seems to be synonymous with *T. solitarius*.

1910, p. 55—Sapucay, Paraguay; Bertoni, Anal. Soc. Cient. Arg., 75, p. 68, 1913—Misiones; idem, Faun. Parag., p. 35, 1914—Paraguay and Misiones; Dabbene, Bol. Soc. Physis, 1, p. 250, 1914—same localities; Hellmayr, Verh. Orn. Ges. Bay., 12, p. 159, 1915—Braço do Sul, Espírito Santo; Dabbene, El Hornero, 1, p. 260, 1919—Bonpland, Misiones; Peters, Bds. World, 1, p. 12, 1931 (range); Pinto, Rev. Mus. Paul., 17, (2), p. 709, 1932—Valparaíso, São Paulo; idem, l.c., 19, p. 51, 1935—Serra do Palhão, Rio Jucurucú, and Cachoeira Grande, Bahia; Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 134, 1935—Puerto Gisella, Rio Paraná, Misiones.

Tinamus guttulatus G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 97, 1867—Brazil (cotypes in British Museum).

Range.—Eastern Brazil, from at least Sergipe in the north to Rio Grande do Sul in the south, and the adjacent parts of Paraguay and Argentina (Misiones).¹

Conover Collection.—1: Brazil (Estado Santa Catharina, 1).

****Tinamus major robustus* Sclater and Salvin. ROBUST TINAMOU.**

Tinamus robustus Sclater, Proc. Zool. Soc. Lond., 28, p. 253, 1860—vicinity of Orizaba, Mexico (nomen nudum); Salvin, Ibis, 1861, p. 355—Yzabal, Guatemala (eggs descr.); idem, Ibis, 1866, p. 195 (not found on the Pacific slope of Guatemala); Sclater and Salvin, Exotic Orn., p. 87, pl. 44, April, 1868—part, southern Mexico, Guatemala, Honduras (Omoa), and Belize (orig. descr.; type, from Choctum, Vera Paz, Guatemala, in Salvin-Godman Collection, now in British Museum; cf. Salvadori, Cat. Bds. Brit. Mus., 27, p. 500, 1895); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 560, 1869—Vera Cruz, Mexico; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 11, 1880—part, spec. 1-4, Mexico (Vera Cruz) and Guatemala (Chimuy, Vera Paz); Sumichrast, La Naturaleza, 5, p. 229, 1881—State of Vera Cruz; Salvadori, Cat. Bds. Brit. Mus., 27, p. 500, 1895—Mexico, Guatemala (Choctum; sources of the Rio de La Pasion), and British Honduras; Lantz, Trans. Kans. Acad. Sci., 16, p. 218, 1899—Santo Tomás, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 448, 1904—Mexico (Potrero, Atriquehuite, near Orizaba, Playa Vicente), British Honduras (Belize), Guatemala (Choctum, Rio de La Pasion, Yzabal; Sierra de las Minas), Honduras (Omoa), and Nicaragua (San Emilio).

Tinamus major (?) (not of Gmelin) Moore, Proc. Zool. Soc. Lond., 27, p. 63, 1859—Omoa, Honduras, and Belize; Sclater and Salvin, Ibis, 1859, p. 226—same localities (cf. Salvin, Ibis, 1866, p. 204).

Trachypelmus robustus Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 303, 1890—Playa Vicente, Vera Cruz, Mexico.

Tinamus fuscipennis Salvadori, Cat. Bds. Brit. Mus., 27, p. 500, 1895—part, spec. b, San Rafael, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 450, 1904—part, descr. of adult and San Rafael del Norte, Nicaragua.

¹ *Additional material examined*.—Brazil: Corcovado, Rio de Janeiro, 1; Braço do Sul, Espírito Santo, 1; Serra do Capivari, Mattodentro, São Paulo, 1; Ypanemá, São Paulo, 1; Jaraguá, Santa Catharina, 7.

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Tinamus robustus fuscipennis Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Yaruca, Honduras.

Tinamus major robustus Griscom, Bull. Mus. Comp. Zool., 69, p. 152, 1929—southern Mexico to northern Nicaragua (crit.); Austin, l.c., 69, p. 369, 1929—Cayo District, British Honduras; Peters, l.c., 69, p. 401, 1929—Lancetilla, Honduras; idem, Bds. World, 1, p. 13, 1931 (range); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 296, 1932—Honduras (Omoa, Lancetilla, Yaruca); Griscom, Bull. Amer. Mus. N. H., 64, p. 96, 1932—Guatemala; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 360, 1939—Santa Rosa, Chiapas.

Range.—Southeastern Mexico (in states of Vera Cruz, Oaxaca [Tutla], Tabasco, and Chiapas) and south in the Caribbean lowlands to Honduras and in the highlands to northern Nicaragua (San Rafael del Norte, San Emilio).

Field Museum Collection.—2: Nicaragua (San Emilio, Lake Nicaragua, 2).

Conover Collection.—11: Mexico (Tutla, Oaxaca, 5); British Honduras (Manatee Lagoon, 1; Belize, 1); Honduras (Ceguaca, Santa Barbara, 2; La Leona, Copan, 1; Mirendon, Copan, 1).

**Tinamus major percautus* Van Tyne.¹ PETÉN TINAMOU.

Tinamus major percautus Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 8, August 1, 1935—Uaxactun, Petén, Guatemala (type in Museum of Zoology, University of Michigan, Ann Arbor).

(?)*Tinamus robustus* (not of Sclater and Salvin) Cole, Bull. Mus. Comp. Zool., 50, p. 144, 1906—Yucatan (eggs descr.).

Range.—Northern Guatemala (Petén District), Campeche (Pacaitun), and probably adjacent parts of Quintana Roo.

Field Museum Collection.—4: Mexico (Campeche, Pacaitun, 4).

**Tinamus major fuscipennis* Salvadori.² DUSKY-WINGED TINAMOU.

¹ *Tinamus major percautus* Van Tyne: Nearest to *T. m. robustus*, but still paler throughout, upper parts much grayer, less brownish, especially on neck and upper back; below also paler, with more extensive white gular area; breast paler and belly often white.

Additional material examined.—Guatemala: Uaxactun, Petén, 3.

² *Tinamus major fuscipennis* Salvadori: Very close to *T. m. robustus*, with which it agrees in sooty black crown and absence of occipital crest, but darker and browner above, and more reddish below.

Birds from Costa Rica agree with those from the lowlands of eastern Nicaragua (Rio Escondido, etc.). According to Peters and Griscom, this form extends east through the Caribbean lowlands of Panama to the Canal Zone. The coloration of the primaries, which served as the principal point of distinction, is now known to have no geographical significance, being due to the freshness of the plumage.

Tinamus fuscipennis Salvadori, Cat. Bds. Brit. Mus., 27, p. 500, 1895—part, spec. a, c, Escondido River, Nicaragua, and "Veragua" (type, from Escondido River, in British Museum, as restricted by Peters, Bds. World, 1, p. 13, 1931); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 450, 1904—Nicaragua (part, Rio Escondido), Costa Rica (part, San José, San Carlos, Carrillo, Jiménez, Miravalles), and "Veragua"; Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—San Juan del Norte, Nicaragua.

Tinamus robustus (not of Sclater and Salvin) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 140, 1868—San José and San Carlos, Costa Rica; Frantz, Journ. Orn., 17, p. 374, 1869—Costa Rica; Salvin, Ibis, 1874, p. 329—Veragua; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 11, 1880—part, spec. 5, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 525, 1893—Rio Escondido, Nicaragua; Underwood, Ibis, 1896, p. 449—Miravalles, Costa Rica.

Tinamus salvini Underwood, Bull. Brit. Orn. Cl., 7, p. lix, June 30, 1898—Carrillo, Costa Rica (descr. of young; type in Salvin-Godman Collection, now in British Museum); idem, Ibis, 1898, p. 612 (reprint).

Tinamus robustus robustus Carriker, Ann. Carnegie Mus., 6, p. 375, 1910—Cuábre, Costa Rica (crit.).

Tinamus robustus fuscipennis Carriker, Ann. Carnegie Mus., 6, p. 375, 1910—Tenorio, La Vijagua, Cariblanco de Sarapiquí, El Hogar, Rio Sicsola, and Carrillo, Costa Rica (crit., habits).

Tinamus major fuscipennis Chapman, Bull. Amer. Mus. N. H., 36, p. 189 (in text), 1917—Nicaragua (in part) and Gatún, Canal Zone, Panama (crit.); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 446, 1928—Almirante, Panama (crit.); Griscom, Bull. Mus. Comp. Zool., 69, p. 152, 1929—Caribbean lowlands of Nicaragua to the Canal Zone (crit.); Peters, l.c., 71, p. 296, 1931—Boquete Trail and Cricamola, Almirante, Panama; idem, Bds. World, 1, p. 13, 1931 (range); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 206, 1932—Great Falls, Pis Pis River, Nicaragua (eggs descr.); Griscom, Bull. Mus. Comp. Zool., 78, p. 290, 1935—Caribbean slope of western Panama (Almirante to Canal Zone).

Range.—Caribbean lowlands of Nicaragua, and most of Costa Rica south along the Caribbean slope of western Panama to the Canal Zone.

Field Museum Collection.—1: Costa Rica (Orosí, 1).

Conover Collection.—14: Costa Rica (Volcan Turrialba, Limón, 4; Volcan Miravalles, Guanacaste, 2; Cerro Santa Maria, Guanacaste, 1); Panama (Cricamola, Boca del Toro, 7).

****Tinamus major castaneiceps* Salvadori.¹ CHESTNUT-CROWNED TINAMOU.**

¹ *Tinamus major castaneiceps* Salvadori: Similar in general coloration to *T. m. fuscipennis*, but crown chestnut, the feathers with narrow apical margins of blackish; only the forehead sometimes tinged with sooty; auriculars darker chestnut.

Additional material examined.—Panama: Volcan de Chiriquí, 2 (the cotypes); Bugaba, 1; Lion Hill, 1.

Tinamus castaneiceps Salvadori, Cat. Bds. Brit. Mus., 27, p. 507, pl. 6 (after Sept. 6), 1895—Volcan de Chiriquí, Panama (cotypes in British Museum examined); Bangs, Auk, 18, p. 356, 1901—Divalá, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 451, 1904—part, Costa Rica (Pózo Azúl) and Panama (Bugaba, Santiago de Veragua, Divalá, Lion Hill); Bangs, Auk, 24, p. 290, 1907—[El Pózo de Térraba], Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 376, 1910—Pózo Azúl de Pirris and El Pózo de Térraba, Costa Rica.

Tinamus robustus (not of Sclater and Salvin) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 477, 1862—Lion Hill, Panama; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 371—Panama Railroad; Salvin, l.c., 1867, p. 159—Santiago de Veragua; Sclater and Salvin, Exot. Orn., p. 87, 1868—part, Veragua and Panama; Salvin, Proc. Zool. Soc. Lond., 1870, p. 218—Bugaba, Chiriquí; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Pózo Azúl de Pirris, Costa Rica; Cherrie, Anal. Inst. Fis.-Geogr. Mus. Nac. Costa Rica, 4, p. 196, 1894—Palmár and Boruca, Costa Rica.

Tinamus major castaneiceps Chapman, Bull. Amer. Mus. N. H., 36, p. 188 (in text), 1917—part, Canal Zone; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 194, 1922—Jesusito, Darien; Griscom, l.c., 69, p. 152, 1929—southwestern Costa Rica to the Canal Zone (crit.); Peters, Bds. World, 1, p. 13, 1931 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 291, 1935—Chiriquí to Rio Chiman, Cape Garachiné, Panama.

Tinamus ruficeps Sclater and Salvin, Nomencl. Av. Neotrop., pp. 152, 162, 1873—part, Panama and Chiriquí.

Range.—Pacific slope of southwestern Costa Rica from the Rio Pirris southward through the forests of the Central Cordillera of Panama to the Rio Chiman, Cape Garachiné, Darien.¹

Field Museum Collection.—3: Costa Rica (Palmar, 1; Boruca, 1; El Pózo de Térraba, 1).

Conover Collection.—6: Costa Rica (El Pózo de Térraba, Puntarenas, 1; Puerto Jiménez, Oso Peninsula, 1; San Joaquin de Dota, 2; Alto de Jabillo, Pirris, 1; El General, San José, 1).

***Tinamus major brunneiventris* Aldrich.² BROWN-BREASTED TINAMOU.**

Tinamus major brunneiventris Aldrich, Sci. Pub. Cleveland Mus. Nat. Hist., 7, p. 28, Aug. 31, 1937—Paracoté, 1 mile south of mouth of Angulo River,

¹ Specimens from the region around Garachiné (Jesusito) are stated by Griscom to be intermediate, one being distinctly nearer *saturatus*, the other nearer *castaneiceps*.

² *Tinamus major brunneiventris* Aldrich: Nearest to *T. m. castaneiceps* from which it differs by having the under parts olive brown (not grayish olive) and the sides of the head darker. From *T. m. saturatus* it differs in the same manner and by lacking the elongated crest. An occasional specimen of *saturatus*, however, has the under parts almost as brown as *brunneiventris*.

Material examined.—Paracoté, Veraguas: Two females and a male.

Veraguas, Panama (type in Cleveland Museum of Natural History, Cleveland, Ohio).

Range.—The heavily forested region of southern Veraguas, Panama (Camp Wilcox and Paracoté, region around Montijo Bay).

****Tinamus major saturatus* Griscom.¹ SATURATED TINAMOU.**

Tinamus major saturatus Griscom, Bull. Mus. Comp. Zool., 69, pp. 150, 152, April, 1929—Cana, eastern Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, Bds. World, 1, p. 13, 1931—extreme eastern Panama and northern Colombia; Griscom, Bull. Mus. Comp. Zool., 72, p. 307, 1932—Permé, Obaldia, and Ranchon, eastern Panama; idem, l.c., 78, p. 291, 1935 (range).

Tinamus major (not of Gmelin) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 195—Rio Truando, Colombia.

Tinamus ruficeps (not of Sclater and Salvin, 1873) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 548—Remedios, Antioquia, Colombia; Salvadori, Cat. Bds. Brit. Mus., 27, p. 506, 1895—part, spec. e, Remedios (spec. examined by C. E. H.).

Tinamus castaneiceps (not of Salvadori) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 451, 1904—part, Colombia (Rio Truando).

Tinamus major ruficeps Chapman, Bull. Amer. Mus. N. H., 36, p. 187, 1917—part, Puerto Valdivia, lower Cauca, Colombia.

Tinamus major castaneiceps Chapman, Bull. Amer. Mus. N. H., 36, pp. 188, 189, 1917—part, Darien (Tapaliza, Tacarcuna) and western Colombia (Rio Salaquí, Rio Atrato, Baudo, Andagueda) (crit.).

Range.—Tropical zone of eastern Darien, from the Rio Tuyra and its tributaries eastwards, and the adjacent districts of Colombia south to Baudo and the sources of the Rio Atrato (Andagueda), east to Antioquia (Puerto Valdivia, lower Cauca; Remedios, Rio Ité).

Conover Collection.—15: Panama (Port Obaldia, Darien, 15).

****Tinamus major latifrons* Salvadori.² ECUADORIAN TINAMOU.**

¹ *Tinamus major saturatus* Griscom: Similar in color of crown to *T. m. castaneiceps*, but distinguished by much darker general coloration both above and below, and by having a well-developed occipital crest. From *T. m. zuliensis* it may be distinguished by much more brownish upper parts with heavier barring, on average darker under surface, and full crest; from *T. m. ruficeps* by lighter brown upper parts and conspicuous occipital crest.

Six adults from Antioquia (Puerto Valdivia and "Medellin") agree fairly well with the Obaldia series, though they are not quite so heavily barred above and somewhat paler below, three of the Colombian specimens having rather whitish bellies and being also devoid of the occipital crest. While slightly pointing to *T. m. zuliensis*, they seem to be much nearer to *saturatus*. The lengthening of the crest-feathers increases in specimens from the Rio Atrato, which thus form the transition to *T. m. latifrons*.

Additional material examined.—Colombia: Puerto Valdivia, lower Cauca, 5; Remedios, Rio Ité, 1; "Medellin," 1.

² *Tinamus major latifrons* Salvadori is nearest to *T. m. saturatus*, but the occipital crest is more developed, and the auriculars are dusky. The pileum is

Tinamus latifrons Salvadori, Cat. Bds. Brit. Mus., 27, p. 506 (after Sept. 6), 1895—Balzar, western Ecuador (cotypes in British Museum); idem and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 51, 1900—Rio Peripa, Ecuador (crit.); Hartert, Nov. Zool., 9, p. 599, 1902—Paramba, Bulón and Lita, Ecuador (variation; eggs descr.); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B3, 1911—Santo Domingo de Los Colorados, Ecuador; Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 12, p. 579, 1913 (crit.).

Tinamus robustus inexpectatus Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 12, p. 578, Dec., 1913—Salidero, Prov. Esmeraldas, Ecuador (type in British Museum examined); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 13, 1922—near Gualea, Ecuador.

Tinamus fuscipennis (not of Salvadòri) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 450, 1904—part, northern Ecuador.

Tinamus major latifrons Chapman, Bull. Amer. Mus. N. H., 36, p. 189, 1917—Barbacoas (Nariño), Colombia; idem, l.c., 55, p. 145, 1926—Gualea, Ecuador (crit.); Peters, Bds. World, 1, p. 13, 1931 (range).

Range.—Tropical zone of southwestern Colombia and western Ecuador (south to Balzar).

Field Museum Collection.—1: Ecuador (Rio Bogotá, Esmeraldas, 1).

Conover Collection.—8: Colombia, Cauca (La Costa, El Tambo, 3; Rio Michengue, 2); Ecuador (Carondelet, 1; Cacao, Rio Verde, 1; Achotal, Imbabura, 1).

****Tinamus major zuliensis* Osgood and Conover.¹ ZULIA
TINAMOU.**

Tinamus major zuliensis Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 24, August 28, 1922—Rio Cogollo, Perijá, State of Zulia,

exceedingly variable in coloration, being within the same locality "either wholly chestnut, wholly slate-color, or one-half one of these colors and one-half the other," as has been explained by Chapman. The type of *T. latifrons* represents the parti-colored, that of *T. r. inexpectatus* the slate-crowned variety.

Seven additional specimens, all from northwestern Ecuador, examined.

¹*Tinamus major zuliensis* Osgood and Conover: Not unlike *T. m. serratus*, but upper parts lighter, more yellowish or olivaceous, less brownish, and on average more heavily barred; crown less intensely rufous; sides of head less reddish, the auriculars duller; under parts not so whitish abdominally and generally more thickly vermiculated.

As in the allied races, there is some individual variation observable, although the series examined is, as a whole, conspicuous for the decidedly yellowish olive coloration of the upper parts. The type is the most yellowish in the lot, but it is almost matched by a specimen from Santa Marta (Valparaiso). Three adults from the tropical lowlands between Mérida and Lake Maracaibo, studied by the senior author in the British Museum, are again very yellowish olive, while a fourth from the same region (Montaña Limones) is much more reddish and can hardly be separated from a Remedios specimen of *T. m. saturatus*. Three other Santa Marta examples are more olivaceous. Birds from the Caura and Orinoco average more brownish, but they vary considerably and two from the Rio Ocamo are very

Venezuela (type in Conover Collection, Field Museum of Natural History); Peters, Bds. World, 1, p. 13, 1931 (range).

Tinamus ruficeps (not of Sclater and Salvin) Allen, Bull. Amer. Mus. N. H., 13, p. 124, 1900—Cacagualiño, Santa Marta.

Tinamus serratus serratus (not *Pezus serratus* Spix) Hellmayr, Nov. Zool., 17, p. 419, 1910—part, Caura Valley, Venezuela; Peters, Bds. World, 1, p. 14, 1931—part, southern Venezuela (upper Caura Valley).

Tinamus major ruficeps Chapman, Bull. Amer. Mus. N. H., 36, p. 188, 1917, -- part, near foot of Mount Duida, Venezuela; Todd and Carriker, Ann. Carnegie Mus., 14, p. 164, 1922—Valparaiso, La Tigra, Las Vegas, and Pueblo Viejo, Colombia.

Tinamus serratus ruficeps Peters, Bds. World, 1, p. 14, 1931—part, northern Colombia.

Range.—Tropical zone of northeastern Colombia (Santa Marta region) and most of Venezuela, south to the upper Orinoco, east to the Caura Valley.

Conover Collection.—1: Venezuela (Rio Cogollo, Perijá, Zulía, 1).

****Tinamus major ruficeps* Sclater and Salvin.¹ RUFIOUS-CROWNED TINAMOU.**

Tinamus ruficeps Sclater and Salvin, Nomencl. Av. Neotrop., pp. 152, 162, 1873—part, "Aequatoria occidentalis" [error for "orientalis"] (type, from Rio Napo, Ecuador, in Salvin-Godman Collection, now in the British Museum, examined by C. E. H.);² Salvadori, Cat. Bds. Brit. Mus., 27, p. 506, 1895—part, spec. a-d, Ecuador (Rio Napo, Sarayacu) and Peru (Iquitos); idem and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 51, 1900—Rio Santiago, Ecuador; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 701 (in text), 1906—Sarayacu, Ecuador (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 13, 1922—Rio Napo, Ecuador.

nearly as yellowish olive as the type of *zuliensis*. While most of the birds united here under *zuliensis* have no crest or but a short one, one from the foot of Mount Duida has the occipital feathers fully as long as in *T. m. major*.

Additional material examined.—Colombia, Santa Marta: Las Vegas, 1; Valparaiso, 1; La Tigra, 1; Pueblo Viejo, 1.—Venezuela: Montaña Limones (alt. 50 meters), Mérida, 3; Montaña del Palmar (alt. 100 meters), Mérida, 1; Caura River, 1; upper Caura River, 2; upper Orinoco, 1; Boca de Sina, Cunucunuma River, upper Orinoco, 1; foot of Mount Duida, 1; Boca del Rio Ocamo, upper Orinoco, 2.

¹ *Tinamus major ruficeps* Sclater and Salvin: Similar to *T. m. serratus*, but upper parts darker, dusky olive brown, and much more heavily barred; crown on average deeper rufous; under parts likewise darker, more strongly vermiculated, particularly on the lower breast and flanks.

While two Iquitos specimens are exactly like the Ecuadorian ones, a single bird from La Morelia, Caquetá, combines above the reddish ground color of *serratus* with the heavy barring of *ruficeps*. For geographical reasons it seems better referred to the western form.

Additional material examined.—Colombia: La Morelia, Caquetá, 1.—Ecuador: Rio Napo, 2; Sarayacu, 2.—Peru: Iquitos, 2.

² The specimen received from Bourcier (through Verreaux) is labeled "Rio Napo," and marked by Salvin, one of the describers, as "type of *T. ruficeps*."

Tinamus major (not of Gmelin) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 13, 1880—part, spec. 10, 11, Iquitos, Peru.

Tinamus serratus ruficeps Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 719, 1906—part, Ecuador (Rio Napo, Sarayacu) and Peru (Iquitos); Peters, Bds. World, 1, p. 14, 1931—part, eastern Ecuador and northern Peru.

Tinamus major ruficeps Chapman, Bull. Amer. Mus. N. H., 36, pp. 187, 188, 1917—part, La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 145, 1926—Rio Suno and below San José, eastern Ecuador.

Range.—Tropical zone of the east slope of the east Colombian Andes (La Morelia, Caquetá)¹ south through eastern Ecuador to the north bank of the Rio Marañón, Peru (Iquitos).

Conover Collection.—13: Ecuador (Concepción, 4; Tio Yaco, 1; Sara-Yaco, 1; Romos Urro, 1; headwaters of Rio Tigre, 1; San José, 1; Lagarto Yacu, 1; Raya Chigta, 1; Rio Suno, 2).

****Tinamus major peruvianus* Bonaparte.² PERUVIAN TINAMOU.**

Tinamus peruvianus Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 573, Sept., 1856—Peru (type in Brussels Museum); Dubois, Mém. Soc. Zool. France, 7, p. 404, 1894 (crit.); Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 719, 1906—Pozúzo, Dept. Huánuco, Peru (crit.).

Tinamus major (not of Gmelin) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 563—Monterico, Peru.

Tinamus ruficeps (not of Sclater and Salvin) Taczanowski, Orn. Pér., 3, p. 292, 1886—Monterico, Peru; Ihering, Rev. Mus. Paul., 6, "1904," p. 452, 1905—Rio Jurúa.

Tinamus serratus serratus (not of Spix) Ihering, Cat. Faun. Braz., 1, p. 5, 1907—Rio Jurúa.

Tinamus major ruficeps Chapman, Bull. U. S. Nat. Mus., 117, p. 42, 1921—Rio Cosireni, Urubamba, Peru.

¹ Heine and Reichenow (Nomencl. Mus. Orn. Hein., p. 303, 1890) list a "*Trachypelmus intermedius* Cabanis," apparently a manuscript name, from "Bogotá" without any description.

² *Tinamus major peruvianus* Bonaparte: Exceedingly close to *T. m. ruficeps*, but ground color of upper parts on average lighter brownish, and the crown slightly paler. The barring above is about as variable as in the allied races, and the junior author noticed considerable variation in the tone of the dorsal plumage, which runs from decidedly brown to yellowish olive, one Bolivian bird resembling in that respect certain specimens of *zuliensis*. It seems rather doubtful if the race is worthy of recognition.

Bonaparte's diagnosis, "Minor: brunneo-rufus, dorso alisque maculis sparsis nigris: subtus pallidior, olivascens, maculis nullis," might apply to any of the upper Amazonian races; but as Dubois tells us that the type was secured by Baron Popelaire de Terloo, whose collecting was principally, if not exclusively, done in Peru south of the Marañón, the pertinence of Bonaparte's name can hardly be questioned.

Additional material examined.—Peru: Pozúzo, Huánuco, 2; Chuchurras, Huánuco, 1.—Bolivia: Rio Surutú, Santa Cruz, 2; Buenavista, Santa Cruz, 1.

Tinamus serratus peruvianus Peters, Bds. World, 1, p. 14, 1931—Pozúzo, Peru.

Range.—Tropical zone of eastern Peru south of the Marañón River to northern Bolivia, east to the Rio Juruá, Brazil.

Conover Collection.—12: Brazil, Rio Juruá (Santo Antonio, 2; Igarapé do Gordão, 1; Igarapé Grande, 2); Peru (Rio Urubamba, 2); Bolivia, Santa Cruz (Buenavista, 1; Rio Ichilo, 1; Rio Surutú, 3).

****Tinamus major olivascens* Conover.¹ OLIVACEOUS TINAMOU.**

Tinamus major olivascens Conover, Proc. Biol. Soc. Wash., 50, p. 191, Oct. 28, 1937—Tome-assú, Rio Acará, Pará, Brazil (type in Conover Collection, Field Museum of Natural History).

Tinamus brasiliensis (not of Latham) Pelzeln, Orn. Bras., 3, p. 291, 1870—part, [Villa Bella de] Matto Grosso on the Rio Guaporé, Matto Grosso, and Cachoeira da Bananeira and Borba, Rio Madeira, Brazil.

Tinamus major (not of Gmelin) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 13, 1880—part, spec. 8, Borba, Rio Madeira.

Tinamus serratus (not of Spix) Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 699, 1906—part, Borba and Matto Grosso (crit.).

Tinamus serratus serratus Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 719, 1906—part, Rio Madeira to Matto Grosso; idem, Nov. Zool., 14, p. 408, 1907—Humaytá, Rio Madeira; Hellmayr, Nov. Zool., 17, p. 419, 1910—Calama, Rio Madeira (range in part); Naumburg, Bull. Amer. Mus. N. H., 60, p. 58, 1930—Matto Grosso; Peters, Bds. World, 1, p. 14, 1931—part, Rio Madeira region.

Tinamus ruficeps (not of Sclater and Salvin) Snethlage, Journ. Orn., 56, p. 23, 1908—Bom Lugar, Rio Purús; idem, Bol. Mus. Goeldi, 8, p. 47, 1914—Rio Purús.

Range.—Brazil south of the Amazon, from the Rio Acará west to the Rio Purús, south to northern Matto Grosso (Villa Bella).

Conover Collection.—11: Brazil (Tome-assú, Rio Acará, 1; Boim, Rio Tapajóz, 1; Hyutanahan, Rio Purús, 1; Labrea, Rio Purús, 5; Canutama, Rio Purús, 3).

¹*Tinamus major olivascens* Conover: Differs from the other races by the extreme olive greenish coloration of the upper parts, which are barred with rather coarse black cross-marks; foreneck and chest decidedly grayish, rest of under parts strongly vermiculated, vent in many specimens white; remiges distinctly olivaceous, much less rufescent than in *serratus* and *ruficeps*, but not as much so when compared to *peruvianus*.

Specimens from the Rio Acará, Rio Tapajóz, Rio Madeira, and the right bank of the Rio Purús are greenish above with practically no rufescent tinge. Some examples from the left bank of the Purús, however, tend toward the coloration of *peruvianus*, having more or less of a brownish shading to the upper parts, especially on the lower back and secondaries.

Additional material examined.—Brazil: Villa Braga, Rio Tapajóz, 1; Borba, Rio Madeira, 2; Calama, Rio Madeira, 4; Humaytá, Rio Madeira, 2; Nova Olinda, Rio Purús, 2; Villa Bella de Matto Grosso, 2.

****Tinamus major serratus* Spix.¹ RIO NEGRO TINAMOU.**

Tinamus serratus Spix, Av. Spec. Nov. Bras., 2, p. 61, pl. 76, 1825—"in sylvis campestribus fl. Nigri"—Rio Negro, Brazil (type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 699, 1906).

Crypturus serratus Wagler, Syst. Av., 1, fol. 19, *Crypturus*, sp. 2, 1827—part, Brazil (descr. of type).

Tinamus brasiliensis (not of Latham) Pelzeln, Orn. Bras., 3, p. 291, 1870—part, "Rio Negro, Dec. 26, 1830" [=São Pedro] and Marabitanas, Brazil.

Tinamus major (not of Gmelin) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 13, 1880—part, spec. 7, Marabitanas, Rio Negro; Salvadori, Cat. Bds. Brit. Mus., 27, p. 502, 1895—São Joaquim and [São Pedro] Rio Negro, Brazil.

Tinamus serratus Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 699, 1906—part, Rio Negro [=São Pedro] and Marabitanas, Rio Negro (crit.).

Tinamus serratus serratus Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 719, 1906—part, valley of the Rio Negro; Peters, Bds. World, 1, p. 14, 1931—part, valley of the Rio Negro.

Tinamus subcristatus (not *Trachypelmus subcristatus* Cabanis) Pelzeln, Orn. Bras., 3, p. 291, 1870—part, São Joaquim, Rio Negro (spec. in British Museum examined by C. E. H.).

Range.—Northwestern Brazil, from the Rio Negro south to the north bank of the Rio Solimões (Manacapurú, Codajáz, Paraná do Jacaré, Tonantins, etc.), west to the vicinity of the lower Rio Iça.

¹ *Tinamus major serratus* Spix differs from *T. m. ruficeps* by lighter (more reddish) upper parts with usually little dark barring; on average lighter rufous crown; paler, less heavily vermiculated under surface, especially on flanks and lower breast. From *T. m. olivascens* it may be separated by distinctly reddish brown, not greenish upper surface, with fewer blackish bars; strongly rufescent secondaries; more brownish chest, and lighter, less vermiculated posterior under parts, the lower breast and middle abdomen being frequently plain buffy white.

Birds from the eastern stretches of the Rio Solimões (Manacapurú, Codajáz, Paraná do Jacaré) agree perfectly with Rio Negro specimens. Of two skins from the lower Rio Iça, one is typical *serratus*, while the other, in dull olive brown, heavily barred dorsal surface, resembles *ruficeps*. A single individual from Tonantins is conspicuous for its very bright reddish green coloration above. Even more aberrant is an adult male obtained by J. Natterer on July 28, 1831, at São Joaquim, at the junction of the Rio Vaupés and the Rio Negro. This bird has the forehead tinged with grayish, the sides of the head dusky, and the occipital feathers lengthened into a full crest as in *major*, but the upper parts are much lighter and more yellowish than even in *zuliensis*, and the foreneck and chest buffier than in any other race; middle of breast and abdomen are extensively plain white as in various individuals of *serratus*. This is the specimen described by Salvadori as the male of his *T. major*, but we are pretty certain that it is nothing but an individual mutant of the Rio Negro form. *T. m. serratus* has no crest or but a short one, while the sides of the head are bright tawny. Near the Venezuelan border its range encroaches on the left bank of the Rio Negro, since two adults from São Pedro are exactly like those from Marabitanas and Codajáz.

Additional material examined.—Brazil: Tatu, Rio Negro, 2; São Pedro, Rio Negro, 2; Marabitanas, Rio Negro, 1; São Joaquim, Rio Negro, 1; Codajáz, Rio Solimões, 2; Manacapurú, 1; Canabouca, Paraná do Jacaré, Rio Solimões, 1; Tonantins, Rio Solimões, 1.

Conover Collection.—6: Brazil (Rio Caura, 1; Manacapurú, 3; Paranei do Matintins, lower Rio Iça, 1; Lago do Caroara, lower Rio Iça, 1).

****Tinamus major major* (Gmelin).¹ GUIANAN TINAMOU.**

Tetrao major Gmelin, Syst. Nat., 1, (2), p. 767, 1789—principally based on "Le Magoua" Buffon, Hist. Nat. Ois., 4, p. 507, pl. 24, 1778; Cayenne.²

Tinamus brasiliensis Latham, Ind. Orn., 2, p. 633, 1790—new name for *Tetrao major* Gmelin.

Tinamus brasilianus Bonnaterre, Tabl. Enc. Méth., Orn., livr. 51, p. 224, pl. 89, fig. 3, 1792—principally based on Buffon's "Le Magoua."

Cryptura magoua Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 104, 1819—new name for *Tinamus brasiliensis* Latham.

Trachypelmus subcristatus Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 749, 1849—British Guiana (type in Berlin Museum); Brown, Canoe and Camp Life Brit. Guiana, p. 48, 1876—Puruni River.

Tinamus subcristatus Pelzeln, Orn. Bras., 3, p. 291, 1870—part, Barra do Rio Negro [= Manáos], Brazil; Salvin, Ibis, 1886, p. 181—Bartica Grove, Camacusa, Merumé Mts., and Roraima, British Guiana; W. L. Sclater, Ibis, 1887, p. 317—Maccasseema, Pomeroron River, British Guiana; Salvadori, Cat. Bds. Brit. Mus., 27, p. 504, 1895—Cayenne, Camacusa, Bartica Grove, Merumé Mts., and Takutú River, British Guiana; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 184, 1904—upper Oyapock,

¹ *Tinamus major major* (Gmelin) is very close to *T. m. serratus*, but may be distinguished by grayish or sooty forehead and anterior superciliary region; dusky instead of tawny sides of the head, notably dusky auriculars; and a full occipital crest.

These characters are quite constant in more than fifty Guianan specimens and eleven others from the north bank of the lower Amazon. Even young, half-grown individuals show the dusky forehead and a suggestion of the crest, though the posterior sides of the head, in particular the auriculars, are very nearly as rufous as in *T. m. serratus*. The large series of British Guianan skins (in the British Museum) show tremendous variation both in color of upper parts and in extent of black barring. The color tone varies from a decided rufous brown (in a female from Camacusa) through every imaginable shade of brownish and olivaceous to a clear yellowish olive approaching that of *T. m. zuliensis*, while, as regards markings, every stage may be found between heavily barred and a few scattered transverse spots here and there. Birds from Manáos, in the light of the long series now on hand, prove to be identical with the Guianan ones, and those from Obidos are not different either, although one, in the coloration of the dorsal surface, comes close to *T. m. olivascens*. A single adult from eastern Venezuela (Rio Yuruan), while rather light above, has the full crest and the grayish forehead and face of the present form.

Additional material examined.—French Guiana: Cayenne, 3.—Surinam, 1.—British Guiana (Camacusa, Tumatumari, Bartica, Merumé Mts., Takutú River, Supenaam, etc.), 50.—Venezuela: Rio Yuruan, 1.—Brazil: Manáos, 7; Obidos, 2; Colonia do Veadó, near Obidos, 1.

² Though certain references of Gmelin's are not applicable, the principal source of his account appears to have been "Le Magoua" of Buffon, who clearly describes the present form—the only one of the group occurring in the Guianas. Buffon remarked that the nude orbital space shown in Daubenton's Pl. Enl., pl. 476, was inaccurate.

French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 47, 1914—Obidos, Brazil.

Tinamus major Schlegel, Mus. Pays-Bas, 8, Tinami, p. 13, 1880—part, spec. 1-6, Surinam and Barra do Rio Negro [=Manáos], Brazil; Berlepsch, Nov. Zool., 15, p. 298, 1908—Cayenne; Chubb, Bds. Brit. Guiana, 1, p. 4, 1916 (many localities); Beebe, Trop. Wild Life, 1, pp. 126, 258, 1917—Bartica, British Guiana (breeding habits).

Tinamus major major Chapman, Bull. Amer. Mus. N. H., 36, p. 188, 1917—Potaro River, British Guiana (crit.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 40, 1918—Lelydorp, Surinam; Peters, Bds. World, 1, p. 13, 1931 (range).

Range.—French, Dutch, and British Guiana, extreme eastern Venezuela (Rio Yuruan, Roraima), and northern Brazil, south to the north bank of the Amazon, from Obidos west to Manáos.

Field Museum Collection.—7: British Guiana (Georgetown, 1; Oko Mountains, Essequibo, 3; Rockstone, Essequibo River, 1; Coverden, Demerara River, 1; Middle Base Camp, Itabu Creek, upper New River, 1).

Conover Collection.—7: British Guiana (Rockstone, Essequibo River, 1; Oko Mountains, Essequibo, 3); French Guiana (Pied Saut, Oyapock, 1); Brazil (Lago Cuipeua, near Obidos, 2).

**Tinamus guttatus* Pelzeln. WHITE-THROATED TINAMOU.

Tinamus guttatus (Natterer MS.) Pelzeln, Verh. Zool.-Bot. Ges. Wien, 13, pp. 1126, 1128, 1863—Borba (Rio Madeira), Rio Vaupé, and Pará, Brazil, and San Carlos (Rio Negro), Venezuela (spec. in Vienna Museum examined);¹ idem, Orn. Bras., 3, p. 292, 1870—Borba, San Carlos, Rio Vaupé (São Jerónimo), and Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 310—Chamicuros, Peru; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 12, 1880—Pará (descr.); Taczanowski, Orn. Pér., 3, p. 295, 1886—Chamicuros, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 112, 1889—falls of the Rio Madeira, Bolivia; Riker and Chapman, Auk, 8, p. 163, 1891—Santarém, Brazil; Salvadori, Cat. Bds. Brit. Mus., 27, p. 508, 1895—Brazil (Pará), Ecuador (Sarayacu), and Peru (Chamicuros); Ihering, Rev. Mus. Paul., 6, "1904," p. 452, 1905—Rio Jurúá, Brazil; Hellmayr, Nov. Zool., 14, p. 409, 1907—Humaytá, Rio Madeira; Ihering, Cat. Faun. Braz., 1, p. 5, 1907—lower Amazon and Rio Jurúá; Snethlage, Journ. Orn., 56, p. 23, 1908—Cachoeira, Rio Purús; Hellmayr, Nov. Zool., 17, p. 419, 1910—Rio Madeira (Borba, Humaytá); idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 82, 97, 1912—Peixe-Boi and Rio Acará, Pará; Snethlage, Bol. Mus. Goeldi, 8, p. 47, 1914—Rio Capim, Rio Acará, and Rio Purús (Cachoeira); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 13, 1922—Rio Napo, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 146, 1926—below San José, Ecuador; Stone, Proc.

¹ Borba, Rio Madeira, designated as type locality by Hellmayr (Nov. Zool., 14, p. 409, 1907).

Acad. Nat. Sci. Phila., 80, p. 150, 1928—Pará; Peters, Bds. World, 1, p. 14, 1931 (range).

Tinamus solitarius (not *Cryptura solitaria* Vieillot) Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará.

Range.—From eastern Ecuador and extreme southwest corner of Venezuela south through eastern Peru (Chamicuros), to northeastern Bolivia (falls of the Rio Madeira), and east through Amazonia to the Pará district.¹

Conover Collection.—26: Brazil (Murutucú, Pará, 2; Murutucú-Matta, Pará, 1; Utinga-Matta, Pará, 1; Villa Braga, Rio Tapajóz, 1; Caxiricatuba, Rio Tapajóz, 3; Tauary, Rio Tapajóz, 3; Boim, Rio Tapajóz, 3; Pinhel, Rio Tapajóz, 1; Serraria Cabral, Rio Acará, 1; Villa Acará, Rio Acará, 2; Arimã, Rio Purús, 1; Lago Grande, Rio Juruá, 2; João Pessoa, Rio Juruá, 1; Igarapé do Gordão, Rio Juruá, 1); Ecuador (headwaters of Rio Tigre, 3).

Genus NOTHOCERCUS Bonaparte

Nothocercus Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 881, 1856—type, by subs. desig. (Salvadori, Cat. Bds. Brit. Mus., 27, p. 509, 1895), *Tinamus julius* Bonaparte.

**Nothocercus bonapartei plumbeiceps* Lönnberg and Rendahl.² GRAY-CAPPED TINAMOU.

Nothocercus plumbeiceps Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 13, 1922—Baeza, road to Napo, eastern Ecuador (type in Stockholm Museum).

Nothocercus bonapartei(?) (not *Tinamus bonapartei* Gray) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 112—Machay, Ecuador (crit.).

Nothocercus bonapartei plumbeiceps Chapman, Bull. Amer. Mus. N. H., 55, p. 147, 1926—below and above Baeza (crit.); Peters, Bds. World, 1, p. 15, 1931 (range).

Range.—Subtropical zone of eastern Ecuador (Baeza, Machay, Cerro Condeja, Huila).

¹ The specimen from "Marajó" mentioned by Hellmayr (Nov. Zool., 14, p. 409, 1907) is from Magoary, on the Bragança Railroad, east of Pará.

While there is considerable variation in the amount of black markings and buffy spotting above, we have not been able to correlate it with particular geographic areas. Birds from the upper Rio Negro appear to be inseparable from those from south of the Amazon. No material from Peru or Bolivia has been available.

Additional material examined.—Brazil: Pará, 2; Peixe-Boi, Pará, 2; Rio Acará, 1; Borba, Rio Madeira, 2; São Jerônimo, Rio Vaupés, 1.—Venezuela: San Carlos, Rio Guainia, 1.

² *Nothocercus bonapartei plumbeiceps* Lönnberg and Rendahl: Very similar to *N. b. bonapartei*, but general coloration darker throughout, the upper parts being noticeably less rufescent. The only Ecuadorian specimen examined by Hellmayr has the throat less ochraceous, but this is probably individual, since Chapman found three topotypes from Baeza similar, in that respect, to others from Colombia.

Additional material examined.—Ecuador: Machay, 1.

Conover Collection.—3: Ecuador (Cerro Condeja, Oriente, 1; Huila, Oriente, 2).

***Nothocercus bonapartei bonapartei** (G. R. Gray). BONA-PARTE'S TINAMOU.

Tinamus bonapartei G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 97, 1867—valley of Aragua, Venezuela (type in British Museum examined).

Nothocercus bonapartei Sclater and Salvin, Nomencl. Av. Neotrop., p. 152, 1873—part, Colombia and Venezuela.

Tinamus nigricapillus (not of G. R. Gray) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 17, 1880—part, spec. 1, Bogotá.

Nothocercus bonapartei Salvadori, Cat. Bds. Brit. Mus., 27, p. 511, 1895—Venezuela (valley of Aragua) and Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 190, 1917—La Palma, Andalucía, and Aguadita, Colombia.

Nothocercus bonapartei bonapartei Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 162, 1912—Cumbre de Valencia, Carabobo, Venezuela (crit.); Peters, Bds. World, 1, p. 15, 1931 (range).

Range.—Subtropical zone of western Venezuela and of the eastern and central Andes of Colombia.¹

Conover Collection.—1: Colombia (La Plata, Huila, 1).

***Nothocercus bonapartei intercedens** Salvadori.² ANTIOQUIA TINAMOU.

Nothocercus intercedens Salvadori, Cat. Bds. Brit. Mus., 27, p. 513, 1895—Frontino, Antioquia, Colombia (type in British Museum examined); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1208—Pueblo Rico, Colombia.

Nothocercus bonapartei (not *Tinamus bonapartei* Gray) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 548—Concordia and Frontino, Colombia (egg descr.).

Tinamus nigricapillus (not of Gray) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 17, 1880—part, spec. 2, "Medellin."

¹ Bogotá skins are rather darker above, more rufescent and less olive than the type and another Venezuelan specimen, but the difference may possibly be due to post-mortem change.

Additional material examined.—Venezuela: Valley of Aragua, 1 (the type); Cumbre de Valencia, Carabobo, 1.—Colombia: Bogotá, 6; Rio Naya, Cundinamarca, 1.

² *Nothocercus bonapartei intercedens* Salvadori differs from the nominate race by paler throat (ochraceous-buff instead of tawny), less reddish, more olivaceous wings, and much less rufescent under parts, the ochraceous-tawny of *bonapartei* being replaced by dingy clay color deepening into cinnamon-brown or dull ochraceous-tawny on chest and foreneck (deep tawny to auburn in *bonapartei*). In coloration of under parts, *N. b. intercedens* is more like *N. b. frantzii*, but the latter has the throat much darker, ochraceous-tawny to tawny, and the lower primary coverts nearly or wholly uniform gray, not barred with rufescent as in *bonapartei* and *intercedens*.

Additional material examined.—Colombia: Frontino, 1 (the type); Concordia, 2; Pueblo Rico, San Juan slopes, 1.

Nothocercus bonapartei intercedens Peters, Bds. World, 1, p. 15, 1931 (range).

Range.—Subtropical zone of the western Andes of Colombia (Frontino, Concordia, Pueblo Rico, Munchique, San Antonio, La Costa).

Conover Collection.—10: Colombia, Cauca (Munchique, El Tambo, 5; San Antonio, 1; La Costa, El Tambo, 2; Rio Munchique, El Tambo, 1; Rio Michengue, El Tambo, 1).

***Nothocercus bonapartei frantzii** (Lawrence). FRANTZIUS'S TINAMOU.

Tinamus frantzii Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 140, 1868—Cervántes, Costa Rica (type in U. S. National Museum); Frantzius, Journ. Orn., 17, p. 374, 1869—Cervántes; Salvin, Ibis, 1874, p. 312—Costa Rica.

Nothocercus bonapartei (not *Tinamus bonapartei* Gray) Sclater and Salvin, Nomencl. Av. Neotrop., p. 152, 1873—part, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 41—Rio Navárrro, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Faldas del Irazú, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, pl. 78, 1904.

Tinamus nigricapillus (not of Gray) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 17, 1880—part, spec. 3, Costa Rica.

Nothocercus frantzii Salvadori, Cat. Bds. Brit. Mus., 27, p. 512, 1895—Panama and Costa Rica (Irazú); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 452, 1904—Costa Rica (Cervántes, Irazú, Faldas, Rio Navárrro, "Asení" [= Asserí], Achiotte de Póas, Estrella de Cartago) and Panama; Carriker, Ann. Carnegie Mus., 6, p. 377, 1910—Costa Rica (Asserí de Irazú, El Achiotte de Póas, La Estrella de Cartago, La Palma de San José, Volcan Turrialba, Ujurrás de Térraba).

Nothocercus bonapartei frantzii Peters, Bds. World, 1, p. 15, 1931 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 291, 1935—Volcan de Chiriquí.

Range.—Highlands of Costa Rica and extreme western Panama (Volcan de Chiriquí).¹

Field Museum Collection.—1: Panama (Boquete, Chiriquí, 1).

Conover Collection.—4: Costa Rica (San Joaquin de Dota, 4).

***Nothocercus julius fuscipennis** Chapman.² DUSKY-WINGED TINAMOU.

¹ A single adult from Chiriquí agrees with Costa Rican specimens.

² *Nothocercus julius fuscipennis* Chapman: Similar to *N. j. julius*, but differs by having the sides of the face, the nape, and the back of the neck more dusky, less rufous; the upper parts darker, more olivaceous; and the under parts, on an average, more extensively vermiculated with dusky.

The character "back . . . finely vermiculated" as given in the original description, does not hold when a series is examined. Out of nine specimens, including the type, examined by the junior author, five have the upper parts vermiculated

Nothocercus fuscipennis Chapman, Amer. Mus. Nov., 18, p. 1, Sept. 22, 1921—Andes west of Popayán, western Andes of Colombia (type in the American Museum of Natural History, New York, examined); Peters, Bds. World, 1, p. 14, 1931—western Andes of Colombia.

Nothocercus julius (not *Tinamus julius* Bonaparte) Chapman, Bull. Amer. Mus. N. H., 36, p. 190, 1917—part, Andes west of Popayán.

Range.—Temperate zone of the western Andes of Colombia (Andes west of Popayán, Munchique, San Antonio).

Conover Collection.—9: Colombia (Munchique, El Tambo, Cauca, 6; Savaneta, El Tambo, Cauca, 2; San Antonio, Cauca, 1).

****Nothocercus julius julius* (Bonaparte). VERREAUX'S TINAMOU.**

Tinamus julius Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 663 (note), 1854—Colombia (type in coll. of J. Verreaux, now in the Academy of Natural Sciences of Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 12, 1899); idem, Not. Orn. Coll. Delattre, p. 93 (note), 1854—Colombia (descr.); Hartlaub, Journ. Orn., 2, p. 410, 1854—New Grenada (descr.); Selater, Proc. Zool. Soc. Lond., 23, p. 163, 1855—Bogotá and Ecuador; idem, l.c., 26, p. 76, 1858—Rio Napo, Ecuador; Gray, List Spec. Bds. Brit. Mus., 5, p. 98, 1867—Bogotá; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 18, 1880—Colombia (crit.).

Nothocercus julius Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, pp. 881, 954, 957, 1856 (crit.); Selater and Salvin, Nomencl. Av. Neotrop., p. 152, 1873—Colombia and Ecuador; Pelzeln, Ibis, 1875, p. 331—"Spanish Guiana"—Colombia (descr. of pullus; spec. examined); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 112—San Rafael, Ecuador; Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 304, 1890—Bogotá; Salvadori, Cat. Bds. Brit. Mus., 27, p. 509, 1895—Colombia (Bogotá) and Ecuador (Monji); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 51, 1900—Pun, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 190, 1917—part, Laguneta, central Andes, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 13, 1922—below Lloa, Algonquinche, and Maspa, Ecuador (crit.).

Nothocercus bourcierii Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, pp. 881, 954, 1856 (stated to be the same as *N. julius*).

Nothocercus salvadorii Chubb, Bull. Brit. Orn. Cl., 33, p. 95, Jan. 29, 1914—"Ecuador" (type in the British Museum examined).

Nothocercus julius salvadorii Chubb, Ibis, 1919, p. 7—west side of Pichincha, Ecuador (crit.).

Nothocercus julius julius Chapman, Bull. Amer. Mus. N. H., 55, p. 146, 1926—Mojanda Mountains, above Baeza, and Ambato, Ecuador (crit.); Peters, Bds. World, 1, p. 15, 1931 (range):

and four (San Antonio and Munchique) have them strongly barred. This difference does not seem to be due to sex, age, or locality, but is an individual characteristic.

In coloration and barring of upper parts, one specimen from Munchique is exactly like a series of typical *julius* from Ecuador.

Additional material examined.—Colombia: Andes west of Popayán, 1 (the type).

Range.—Humid Temperate zone of Ecuador (from the Ambato-Baños region northward) and of the central and eastern Andes of Colombia.¹

Field Museum Collection.—1: Colombia ("Bogotá," 1).

Conover Collection.—5: Ecuador (Piganta, western side of Mojanda Mountains, 2; Montes de Alaspunga, Occidente, 1; Baeza, Oriente, 1; Monte Pilalo, Rio Pilalo, Leon, 1).

****Nothocercus julius venezuelensis* Cory.² TAMÁ TINAMOU.**

Nothocercus julius venezuelensis Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 283, May 31, 1913—Páramo de Tamá (near source of Tachira River), western Venezuela (type in Field Museum of Natural History); Peters, Bds. World, 1, p. 15, 1931 (range).

Range.—Temperate zone of Páramo de Tamá, Prov. Tachira, in extreme western Venezuela.

Field Museum Collection.—1: Venezuela (Páramo de Tamá, 1).

***Nothocercus nigrocapillus nigrocapillus* (G. R. Gray). HOODED TINAMOU.**

Tinamus nigrocapillus G. R. Gray, List Spec. Brit. Mus., 5, p. 98, 1867—"Chili," errore (type in British Museum examined).³

¹ There seems to be no justifiable ground for further subdivision. While the type of *N. salvadorii*, an Ecuadorian skin purchased of Verreaux, is above indeed more broadly barred with the light markings paler, tawny olive rather than Dresden brown as in three Bogotá specimens, other birds from Ecuador very nearly bridge the gap. One male from the west side of Pichincha is essentially like those from Bogotá; a female from Piganta (west side of Mojanda) is halfway between the latter and the type of *N. salvadorii*; and a male from the same locality, in width and color of the bars above, closely approaches Chubb's original example. We have little doubt that Chapman is right in attributing the divergency to individual variation.

Additional material examined.—Colombia: Bogotá, 7; Laguneta, 1.—Ecuador: west side of Pichincha, 1; Piganta, 2; unspecified, 3.

² *Nothocercus julius venezuelensis* Cory needs substantiation by further material. The unique type differs from *julius* by more reddish ground color of the upper parts with finer barring, reduced to vermiculations on the mantle; more grayish foreneck with fewer dusky markings; and paler, more ochraceous-tawny breast. The other alleged characters do not hold, and several Bogotá skins have the forehead and face even more uniform as well as brighter rufous than the type.

³ The type (Brit. Mus. Reg. No. 58.5.8.19) was purchased of Cuming in a mixed lot of nineteen birds from all parts of the world. No locality whatever is given in the registers, but somebody wrote "Chili" on the label. There is no clue as to its place of origin, the indication "Chile" being obviously erroneous. Unfortunately, no other material of the group was available in the British Museum, where the type has been carefully studied by the senior author.

N. nigrocapillus, while no doubt closely related to *N. julius*, is better kept as a separate species for the present pending the receipt of more adequate material. It agrees with *N. julius* in white throat, plain grayish brown lower primary coverts, and nearly unmarked dusky primaries, but has the top of the head and auriculars sooty blackish instead of russet.

Nothocercus nigricapillus Selater and Salvin, Nomencl. Av. Neotrop., p. 152, 1873—hab. ign.; Salvadori, Cat. Bds. Brit. Mus., 27, p. 511, pl. 8, 1895—"Chili"; Chapman, Amer. Mus. Nov., 18, p. 2 (in text), 1921—Locotal, Bolivia.

Nothocercus nigrocapillus Peters, Bds. World, 1, p. 14, 1931—central Bolivia.

Nothocercus nigricapillus nigricapillus Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 2 (in text), 1933—Peru (Santo Domingo, Puno; Huacapistana, Junín) and Bolivia (Incachaca, Cochabamba).

Range.—Subtropical zone of southern Peru (from Junín southwards) and Bolivia (Incachaca and Locotal, Cochabamba).

***Nothocercus nigrocapillus cadwaladeri* Carriker.¹ CADWALADER'S TINAMOU.**

Nothocercus nigricapillus cadwaladeri Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 2, March 24, 1933—Leimabamba, Dept. Amazonas, Peru (type in the Academy of Natural Sciences of Philadelphia).

Range.—Subtropical zone of northern Peru (only recorded from Leimabamba, Dept. Amazonas).

Genus CRYPTURELLUS Brabourne and Chubb

Crypturellus Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 322, 1914—type, by orig. desig., "*C. tataupa*" Temm.=*Tinamus tataupa* Temminck.

Microcrypturus Chubb, Bull. Brit. Orn. Cl., 28, p. 30, Dec. 29, 1917—new name for *Crypturellus* Brabourne and Chubb (believed to be preoccupied by *Crypturella* Silvestri).

Crypturornis Oberholser, Proc. Biol. Soc. Wash., 35, p. 74, 1922—type, by orig. desig., *Tetrao cinereus* Gmelin.

Orthocrypturus Miranda-Ribeiro, Rev. Mus. Paul., 23, p. 739, 1938—type, by orig. desig., *Tetrao variegatus* Gmelin.

¹*Nothocercus nigrocapillus cadwaladeri* Carriker: Similar to *N. n. nigrocapillus* (from the Yungas of La Paz, Bolivia), but much more reddish brown above; lower throat more brownish, less grayish; chest and breast bright reddish brown instead of buffy brown, with an indistinct series of narrow broken lines of black across extreme upper chest; abdomen more reddish buffy. Other characteristics given by the describer seem unimportant.

Two specimens from Leimabamba were compared by the junior author with five *nigrocapillus* (Sandillani, Yungas of La Paz, 1; Hichuloma, Yungas of La Paz, 1; Santo Domingo, Marcapata, Peru, 1; Huacapistana, Junín, Peru, 2). The type of *N. nigrocapillus* being of decidedly reddish brown coloration, it is quite possible that on comparison with the two races here distinguished it may prove to pertain to *cadwaladeri* rather than to the southern form to which Gray's name has been applied by Chapman and Carriker.

Specimens from Junín (Huacapistana) were found by the junior author to be similar to *cadwaladeri* on the upper, to the southern form on the lower parts, being thus strictly intermediate.

****Crypturellus cinereus cinereus* (Gmelin). CINEREOUS TINAMOU.**

Tetrao cinereus Gmelin, Syst. Nat., 1, (2), p. 768, 1789—based on “Le Tinamou cendré” Buffon, Hist. Nat. Ois., 4, p. 510, 1778; Cayenne.

Tinamus cinereus Temminck, Hist. Nat. Pig. Gall., 3, pp. 574, 750, 1815—“Pará” and Guiana; Pelzeln, Orn. Bras., 3, p. 292, 1870—Borba, Rio Madeira, and Cayenne.

Crypturus cinereus Wagler, Syst. Av., 1, fol. 19, spec. 5, 1827 (ex Temminck); Tschudi, Arch. Naturg., 10, (1), p. 307, 1844—Peru; idem, Faun. Peru., Aves, p. 46, 1845—Peru; Burmeister, Syst. Uebers. Th. Bras., 3, p. 317, 1856—Pará, lower Amazon, Guiana, and Peru (desc.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 310—Chamicuros and Santa Cruz, Peru; Allen, Bull. Essex Inst., 8, p. 83, 1876—Santarém; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 20, 1880—Surinam, Peru (Chamicuros, Iquitos), and Brazil (Borba, Rio Madeira) (crit.); Taczanowski, Orn. Pér., 3, p. 300, 1886—Peru (Chamicuros, Santa Cruz) and Cayenne; Salvadori, Cat. Bds. Brit. Mus., 27, p. 517, 1895—Cayenne, British Guiana (Takutú River), and Peru (Iquitos, Santa Cruz); Berlepsch and Hartert, Nov. Zool., 9, p. 122, 1902—Maipures, Rio Orinoco, Venezuela (crit.); Hellmayr, Nov. Zool., 13, p. 385, 1906—Santo Antonio do Prata and Marajó, Pará; idem, l.c., 14, pp. 90, 409, 1907—Teffé, Rio Solimões, and Humaytá, Rio Madeira; Berlepsch, l.c., 15, p. 298, 1908—Cayenne; Hellmayr, l.c., 17, p. 410, 1910—Calama and Jamarysinho, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Santo Antonio do Prata, Pará; Snethlage, Bol. Mus. Goeldi, 8, p. 48, 1914—Pará, Monte Alegre, and Cachoeira, Rio Purús; Chubb, Bds. Brit. Guiana, 1, p. 9, pl. 1, fig. 2, 1916—Takutú River, British Guiana; Cherrie, Mus. Brookl. Inst., Sci. Bull., 2, p. 360, 1916—Maipures, Rio Orinoco; Chapman, Bull. Amer. Mus. N. H., 36, p. 191, 1917—Barrigon, eastern Colombia.

[*Crypturus*] *assimilis* (Pelzeln MS.) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 20 (in text), 1880—Borba, Rio Madeira (cotypes in Vienna Museum).

Crypturus macconnelli Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, Oct., 1914—Bonasica, British Guiana (type in coll. of F. V. McConnell, now in the British Museum, examined); Chubb, Bds. Brit. Guiana, 1, p. 8, pl. 1, fig. 1, 1916—Ituribisci River, Bartica, Kamakabra Creek, Bonasika, and Abary River; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 40, 1918—vicinity of Paramaribo, Surinam; Chapman, Bull. Amer. Mus. N. H., 55, p. 147, 1926—Rio Suno, Ecuador.

Crypturus macconnelli fumosus Chapman, Amer. Mus. Nov., 332, p. 1, Oct. 31, 1928—junction of Rios Napo and Curaray, eastern Ecuador (type in the American Museum of Natural History, New York).

Crypturellus cinereus Peters, Bds. World, 1, p. 16, 1931 (range).

Crypturellus berlepschi macconnelli Peters, Bds. World, 1, p. 16, 1931—British and Dutch Guiana.

Crypturellus berlepschi cinerascens Carriker, Proc. Acad. Nat. Sci. Phila., 87, p. 315, Oct. 10, 1935—Chatarona (near Reyes), Dept. Beni, Bolivia (type in collection of the Academy of Natural Sciences of Philadelphia).

Crypturellus cinereus rufescens Todd, Proc. Biol. Soc. Wash., 51, p. 125, May 19, 1938—Miritituba, Rio Tapajóz, Brazil (type in Carnegie Museum, Pittsburgh).

Range.—The Guianas, west through the Orinoco region (Maipures) to the eastern base of the east Colombian Andes (Barrigon) and the whole of Amazonia from the Pará district west to the base of the Andes in Ecuador, Peru, and northern Bolivia.¹

Field Museum Collection.—2: British Guiana (Middle Base Camp, upper New River, 1; Coverden, 1).

Conover Collection.—26: Brazil (Utinga, Pará, 1; Lago Baptista, Amazonas, 1; Valde-Caes, Belem, Pará, 1; Lago Taypayuna, Amazonas, 1; Boim, Rio Tapajóz, 1; Miritituba, Rio Tapajóz, 1; Boca do Rio Itugú, near Santarém, 1; Lago Cuipeua, near Obidos, 1; Labrea, Rio Purús, 2; João Pessôa, Rio Juruá, 7; Lago Grande, Rio Juruá, 2; Igarapé do Gordão, Rio Juruá, 2); Ecuador (Sara-Yaco, Rio Bobonaza, 1; headwaters of Rio Tigre, 4).

¹ This tinamou shows considerable variation in coloring. Generally speaking, two varieties may be distinguished: one of decidedly brownish coloration with auburn nape and crown, corresponding to pl. 1, fig. 2, in Chubb's "Birds of British Guiana," to which Brabourne and Chubb rather arbitrarily restricted the name *C. cinereus* (although Buffon's description, "d'un brun cendré uniforme sur tout le corps, et cette couleur ne varie que sur la tête et le haut du cou, où elle prend une teinte de roux," hardly lends itself to such an interpretation), and another darker form with fuscous upper, dark hair brown to nearly clove brown under parts, and duller (mars brown) crown, which has been separated as *C. macconnelli*. These two types of coloration have no ranges of their own, both being found in French and British Guiana, Lower and Upper Amazonia, though in certain regions one type may predominate even to the exclusion of the other. We have seen only brownish birds from the Rio Purús and only sooty ones from the Rio Juruá. In Lower Amazonia, the so-called "*cinereus*" (sensu Brabourne and Chubb) is the ordinary form, though one from Santarém is an extremely dark-colored "*macconnelli*." In British Guiana, whence a fine series of nicely prepared skins exists in the British Museum, the two varieties are completely bridged by intermediates. The type of *C. macconnelli* from Bonasica is not an excessively dark example, being tinged with Prout's brown or mummy brown on rump and tail coverts, and shaded with drab on the posterior lower parts. However, a bird from Ituribisci (August, 1909) is a good match for the type, even in the very dull rufous of the crown. If two species were to be admitted, there is no question that the type should go with the sooty variety. The Bonasica specimen differs a little from No. 10767, Conover Collection (male, headwaters of Rio Tigre, Napo-Pastaza, Feb. 10, 1933), by slightly lighter back and by being more brownish posteriorly. Two adults from Supenaam, while agreeing with the average of "*macconnelli*" below, are more brownish on the back and in that respect closely approach certain "*cinereus*." One has just a faint shade of dull rufous on the head. Another bird from Bartica is still browner above, matching a male of "*cinereus*" from Rio Takutú, but has hardly a trace of dull rufous on the crown, while underneath it is intermediate between the two varieties, though nearer "*macconnelli*." Except for the duller crown, it comes very close to No. 12,004, Conover Collection (male, Lago Taypayuna, across Amazon from Itacoatiará). Of the so-called "*cinereus*," a female from Rio Takutú is distinctly reddish brown above, with bright rufous crown, but below it closely resembles the type of "*macconnelli*." A male from the same locality is more decidedly brownish below, but less so above, and can hardly be told from a Bartica bird. Of six specimens from

****Crypturellus cinereus berlepschi* (Rothschild).¹ BERLEPSCH'S TINAMOU.**

Crypturus berlepschi Rothschild, Bull. Brit. Orn. Cl., 7, p. v, Oct. 31, 1897—Cachaví, Prov. Esmeraldas, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York); Hartert, Nov. Zool., 5, p. 505, pl. 3, fig. 2, 1898—Cachaví; idem, l.c., 9, p. 600, 1900—Lita, Bulún, and Carondelet, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 191, 1917—Baudo, Nóvita, and Barbacoas, Colombia; idem, l.c., 55, p. 148, 1926—northwestern Ecuador.

Crypturellus berlepschi berlepschi Peters, Bds. World, 1, p. 16, 1931 (range).

Range.—Tropical zone of western Colombia and western Ecuador.

Field Museum Collection.—1: Ecuador (Rio Sapayo, 1).

Conover Collection.—3: Ecuador (Bulún, 1; Mindo Milpe, Pichincha, 2).

****Crypturellus soui meserythrus* (Sclater).² MEXICAN PILEATED TINAMOU.**

French Guiana, three are typical "*macconnelli*," and two are just as distinctly "*cinereus*," while the sixth (from Pied Saut) combines the sooty body coloration of the former with the bright rufous crown of the latter. Two skins from Santa Cruz, Peru, are "*cinereus*," whereas a female from Iquitos is "*macconnelli*" according to sooty coloring, but with an extensive bright rufous crown. Birds from Upper Amazonia (eastern Ecuador, northern Peru, and Rio Jurúa) show perhaps a tendency to be a little more rufous on the crown, and on the average less barred on the flanks, but the divergency is too insignificant to warrant the recognition of *C. c. fumosus*, with which *C. c. cinerascens* is evidently synonymous. The study of our extensive material leads us to the conclusion that *C. cinereus* and *C. macconnelli* are merely color-variants of the same bird.

Additional material examined.—French Guiana: Cayenne, 5; Pied Saut, 1.—Dutch Guiana: Paramaribo, 1; "Surinam," 2.—British Guiana: Bartica Grove, 4; Mines District, 1; Rio Takutú, 3; Bonasica, 1; Camacabra Creek, 1; Abary River, 1; Ituribisci River, 2; Supenaam, 3; unspecified, 3.—Brazil: Upper Rocana, northern Pará, 1; Benevides, Pará, 1; Magoary, Pará, 1; Santo Antonio do Prata, Pará, 1; Miritituba, Rio Tapajóz, 1; Villa Braga, Rio Tapajóz, 1; Borba, Rio Madeira, 5; Hyutanahan, Rio Purús, 1; Arimã, Rio Purús, 1; Teffé, Rio Solimões, 1.—Peru: Iquitos, 1; Santa Cruz, 2.—Venezuela: Maipures, Orinoco, 1.—Colombia: Barrigon, 1.

¹*Crypturellus cinereus berlepschi* (Rothschild) is even blacker than the so-called "*C. m. fumosus*," and differs, besides, by black instead of auburn to mars brown pileum and by lacking the white streaks on the throat.

Further research may indicate that this form should be called a full species. While closely resembling *cinereus* in coloration, the toes are much longer in proportion to the length of the tarsus, and the bill seems much heavier, also. It would be interesting to know how the coloration of the eggs compares and whether there is any difference in the voice.

Additional material examined.—Northwestern Ecuador, 3.

²*Crypturellus soui meserythrus* (Sclater) is a richly colored race with marked sexual difference. Female very slightly darker than *C. s. modestus* on the upper parts, but becoming chestnut rufous on tail coverts; secondaries and tertials broadly tipped and edged with rufous, recalling certain South American races; below, bright ochraceous on abdomen, strongly cinnamonaceous on chest, sides,

Tinamus meserythrus Sclater, Proc. Zool. Soc. Lond., 27, p. 392, 1859—Playa Vicente, Oaxaca, Mexico (type in Salvin-Godman Collection, now in British Museum); Salvin, Ibis, 1861, p. 356—Guatemala (egg descr.).

Crypturus meserythrus Sclater and Salvin, Exot. Orn., p. 93, pl. 47, 1868—part, Mexico (Playa Vicente) and Guatemala (Choctum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 453, 1904—part, Mexico (Playa Vicente), Guatemala (Choctum), and Nicaragua (Rio Escondido, San Emilio, Santo Domingo, Chontales).

Crypturus pileatus meserythrus Schlegel, Mus. Pays-Bas, 8, Tinami, p. 25, 1880—southern Mexico and Guatemala (Coban and Sacapulas) (crit.).

Crypturus pileatus (not *Tetrao pileatus* Boddaert) Richmond, Proc. U. S. Nat. Mus., 16, p. 525, 1893—Rio Escondido, Nicaragua; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. e'-p', Nicaragua (Rio Escondido; Santo Domingo, Chontales), Guatemala (Choctum), and Mexico (Playa Vicente).

Crypturus soui modestus (not of Cabanis) Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Yaruca, Honduras.

Crypturus soui meserythrus Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 76, 1907—Los Amates, Guatemala; Carriker, Ann. Carnegie Mus., 6, p. 380, 1910—Vera Cruz (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 97, 1932—Secanquim, Chipoc, and Finca Chamá, Guatemala (crit.).

Crypturellus soui meserythrus Peters, Bull. Mus. Comp. Zool., 69, p. 402, 1929—near Tela River, Honduras; idem, Bds. World, 1, p. 17, 1931—Mexico to Honduras; Griscom, Bull. Mus. Comp. Zool., 72, p. 310, 1932—Vera Cruz to southeastern Nicaragua (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 296, 1932—Yaruca and Lancetilla, Honduras; Carriker and Schauensee, l.c., 87, p. 413, 1935—Quirigua, Guatemala; Var-Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 9, 1935—Chuntuquí, Sacchich, and Remate, Petén, Guatemala; Deignan, Auk, 53, p. 187, 1936—La Ceiba, Honduras.

Range.—Tropical zone of the Caribbean side of southeastern Mexico (Vera Cruz and northern Oaxaca) south through Guatemala and Honduras to southeastern Nicaragua.

Field Museum Collection.—3: Guatemala (Los Amates, Izabal, 1; Chemulco, Izabal, 2).

Conover Collection.—22: Mexico (Buenavista, Vera Cruz, 1; Tutla, Oaxaca, 3); Honduras (La Ceiba, Atlantida, 3; Merendon, Copan, 1; La Libertad, Copan, 1; San José, Santa Barbara, 1; Ceguaca, Santa Barbara, 6; San Marcos de Guaymaca, 2; Catacamas, Olancho, 4).

and flanks, thus very different from *modestus*, and nearer *panamensis*, but far brighter and more rufescent. Male very close to *panamensis*, but brighter cinnamon ochraceous below.

As correctly pointed out by Griscom, the female of this northernmost race bears a remarkable likeness to the male of *C. s. soui*.

Additional material examined.—Guatemala, 7.

****Crypturellus soui modestus* (Cabanis).¹ CABANIS'S PILEATED TINAMOU.**

Crypturus modestus Cabanis, Journ. Orn., 17, p. 212, 1869—Costa Rica (type in Berlin Museum); Frantzius, l.c., p. 374, 1869—Costa Rica.

Crypturus pileatus (not *Tetrao pileatus* Boddaert) Nutting, Proc. U. S. Nat. Mus., 5, p. 409, 1882—La Palma de Nicoya, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Las Trojas, Pózo Azul de Pirrís, and Naránjo de Cartago, Costa Rica; Cherrie, Anal. Inst. Fis.-Geogr. Mus. Nac. Costa Rica, 4, p. 146, 1893—Lagarto and Buenos Aires, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. b', c', "Bibalá" [=Divalá], Chiriquí.

Crypturus meserythrus (not *Tinamus meserythrus* Sclater) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 453, 1904—part, Costa Rica (Las Trojas, Pózo Azul de Pirrís, Naránjo de Cartago, Jiménez, La Palma) and Chiriquí (Divalá).

Crypturus soui modestus Bangs, Auk, 18, p. 356, 1901—Divalá, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 21, 1902—Boquete, Chiriquí; idem, Auk, 24, p. 290, 1907—Boruca and El Pózo de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, pp. 378, 380, 1910—Pirrís, Pózo Azul, El General de Térraba, Buenos Aires, Guápiles, Tucurríqui, and Cuábre, Costa Rica (crit., nest and egg).

Crypturellus soui modestus Peters, Bds. World, 1, p. 17, 1931 (range); Griscom, Bull. Mus. Comp. Zool., 72, p. 310, 1932—Costa Rica and Pacific slope of Chiriquí (crit.); idem, l.c., 78, p. 291, 1935—Pacific slope of Chiriquí.

Range.—Tropical zone of Costa Rica and Pacific slope of western Chiriquí (Divalá, Boquete).

Field Museum Collection.—4: Costa Rica (Lagarto, 1; Buenos Aires, 1; El Pózo, Rio Térraba, 1); Panama (Boquete, Chiriquí, 1).

Conover Collection.—18: Costa Rica (Las Cañas, 5; Volcan Turrialba, Limon, 1; Las Agujas, 1; Paquera, Nicoya, 1; Limon, 1; Savanillas de Pirrís, 1; San Jerónimo de Pirrís, 4; San Carlos, Alajuela, 1); Panama (Boquete, Chiriquí, 2; El Banco, Chiriquí, 1).

***Crypturellus soui poliocephalus* (Aldrich).² GRAY-HEADED PILEATED TINAMOU.**

¹ *Crypturellus soui modestus* (Cabanis) may be separated from the neighboring races by the sexes being nearly alike. Nearest to *C. s. panamensis*, the male is distinguishable by much more grayish upper surface and much paler, dingy grayish brown, ochraceous-tinged under parts, while the female is seal brown above instead of chestnut brown and more grayish below.

Four skins from Chiriquí (Boquete) agree well with five from Costa Rica.

² *Crypturellus soui poliocephalus* (Aldrich) may be separated from the three neighboring races, *modestus*, *harterti*, and *panamensis* by the more rufous coloration of the female both above and below. The head is also browner, less blackish. The males are, perhaps, more buffy on the lower breast and abdomen, and slightly lighter above, but the coloration of the head seems very little different from a series of *modestus*.

Material examined.—Panama, Paracoté, Veraguas: Males, 3; females, 2.

Crypturornis soui poliocephalus Aldrich, Sci. Pub. Cleveland Mus. Nat. Hist., 7, p. 30, 1937—Paracoté, east shore Montijo Bay, 1 mile south of mouth of Angulo River, Veraguas, Panama (type in Cleveland Museum of Natural History, Cleveland, Ohio).

Range.—Known only from the type locality, but probably ranges throughout the Pacific slope of Veraguas, and possibly eastern Chiriquí.

****Crypturellus soui panamensis* (Carriker).¹ PANAMA PILEATED TINAMOU.**

Crypturus soui panamensis Carriker, Ann. Carnegie Mus., 6, p. 379, 1910—Loma del León, Panama Railroad (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 153, 1930); Rendahl, Ark. Zool., 13, No. 4, p. 21, 1920—San Miguel Island; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 195, 1922—Jesusito, Darien; Hallinan, Auk, 41, p. 310, 1924—Sosa Hill, Panama Canal.

Tinamus pileatus (not *Tetrao pileatus* Boddaert) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 334, 1861—Panama Railroad.

Tinamus meserythrus (not of Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 371—Panama Railroad.

Crypturus meserythrus Sclater and Salvin, Exot. Orn., p. 93, 1868—part, Veraguas and Panama (Panama Railroad, Chepo); Salvin, Proc. Zool. Soc. Lond., 1870, p. 218—Chitrá, Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 453, 1904—part, Panama (Lion Hill, Santa Fé, Chitrá, Chepo, San Miguel Island).

Crypturus pileatus Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. y-a', d', Lion Hill, Chepo, Chitrá, and Santa Fé, Panama.

Crypturus soui modestus (not of Cabanis) Bangs, Proc. New Engl. Zool. Cl., 2, p. 14, 1900—Loma del Leon, Panama; Bangs, Auk, 18, p. 25, 1901—San Miguel Island; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 145, 1905—San Miguel Island; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 241, 1918—Tabernilla, Panama Canal Zone.

Crypturellus soui panamensis Peters, Bds. World, 1, p. 17, 1931 (range); Griscom, Bull. Mus. Comp. Zool., 72, p. 309, 1932—Pacific slope of Panama, Veraguas to Cape Garachiné, Darien; idem, l.c., 78, p. 291, 1935 (range).

Range.—Pacific slope of Panama, from Veraguas to Cape Garachiné on the coast of eastern Darien, and Pearl Islands.

Field Museum Collection.—1: Panama (Old Panama City, 1).

¹*Crypturellus soui panamensis* (Carriker) is characterized by Griscom as nearest to *C. s. harterti*, but paler and duller, with less contrast between the sexes, and the pileum brown, not sooty. Female browner, less rufous above, paler and duller below, with less contrast between center of abdomen and flanks; male much paler, browner and less sooty above, and paler below, not so sooty on chest and sides and darker in the middle, consequently more uniform. It is also close to *C. s. caucae*, but paler and less rufescent throughout.

Five specimens from the Panama Railroad conform to Griscom's characterization. According to Griscom, its range extends east to the Cape Garachiné region.

****Crypturellus soui harterti* (Brabourne and Chubb).¹ HARTERT'S
PILEATED TINAMOU.**

Crypturus soui harterti Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 321, Oct., 1914—Vaqueria, Prov. Esmeraldas, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York); Chapman, Bull. Amer. Mus. N. H., 55, p. 148, 1926—Ecuador (Esmeraldas, Chone, Rio Jubones, Rio de Oro, Naránjo, Santa Rosa) and Colombia (Dabeiba).

Tinamus sp. Slater, Proc. Zool. Soc. Lond., 28, p. 289, 1860—Babahoyo, Ecuador.

Crypturus sp. Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 577—Chimbo, Ecuador.

Crypturus pileatus (not *Tetrao pileatus* Boddaert) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 113—Yaguachi, Ecuador; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. t, u, Balzar, Ecuador.

Crypturus pileatus subsp. Hartert, Nov. Zool., 9, p. 599, 1902—Bulún, Vaqueria, and Rio Sapayo, Prov. Esmeraldas, Ecuador.

Crypturus soui modestus (not of Cabanis) Chapman, Bull. Amer. Mus. N. H., 36, p. 192, 1917—Dabeiba, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Gualea, Ecuador.

Crypturellus soui modestus Peters, Bull. Mus. Comp. Zool., 71, p. 296, 1931—Zegla (near Almirante) and Guábo, Panama (crit.).

Crypturellus soui harterti Peters, Bds. World, 1, p. 18, 1931 (range); Griscom, Bull. Mus. Comp. Zool., 72, pp. 307, 309, 1932—western Ecuador to Panama (crit.); idem, l.c., 78, p. 291, 1935 (range in Panama).

Range.—Western Ecuador and Pacific Colombia to the Pacific slope of extreme eastern Panama (Darien) and the whole of the Caribbean slope to Almirante Bay.

Field Museum Collection.—1: Panama (Colón, 1).

Conover Collection.—29: Panama (Cricamola, Bocas del Toro, 2; Port Obaldia, Darien, 13); Colombia (Jiménez, 1); Ecuador (Vaqueria, Esmeraldas, 1; San Mateo, Esmeraldas, 2; Puente de Chimbo, 2; Milagro, Guayas, 2; Rio San Antonio, Prov. de Los Rios, 6).

****Crypturellus soui caucae* (Chapman).² CAUCA PILEATED
TINAMOU.**

¹ *Crypturellus soui harterti* (Brabourne and Chubb), according to the exhaustive investigations of Griscom, connects the browner or duskier Central American races with the more rufous forms of Upper Amazonia, being nearest to *C. s. caucae*. Female decidedly more grayish brown, less rufescent above, and much less rufescent below, gray and less orange tawny on breast and chest; male much darker throughout, especially less ochraceous underneath. The male rather approaches *C. s. caquetae* in general coloration, but is grayer above, less brownish, with flanks and thighs much less heavily barred. Males from eastern Panama (Darien) are stated to average rather darker and sootier than those from western Ecuador.

² *Crypturellus soui caucae* (Chapman) is characterized by Griscom as "a transitional form, connecting the pale rufous *mustelinus* with the darker, less

Crypturus soui cauae Chapman, Bull. Amer. Mus. N. H., 31, p. 141, July 23, 1912—San Antonio, western Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 191, 1917—Las Lomitas and San Antonio (western Andes), Rio Frio and Puerto Valdivia (Cauca Valley), and Malena (Magdalena Valley), Colombia.

Crypturus pileatus (not *Tetrao pileatus* Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 548—Cauca (egg descr.); Schlegel, Mus. Pays-Bas, 8, Tinami, p. 24, 1880—part, spec. 5, "Medellin," Colombia; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. x, Cauca.

Crypturellus soui cauae Peters, Bds. World, 1, p. 18, 1931—Cauca and Magdalena valleys; Griscom, Bull. Mus. Comp. Zool., 72, p. 308, 1932 (crit.).

Crypturus meserythrus (not *Tinamus meserythrus* Sclater) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 453, 1904—part, Cauca Valley.

Range.—Tropical zone (and lower border of the Subtropical zone) in the Magdalena and Cauca valleys, encroaching on the western Andes (San Antonio, Las Lomitas).

Conover Collection.—4: Colombia (Jaraquiel, Dept. Bolivar, 1; Guabas, El Tambo, Cauca, 3).

***Crypturellus soui caquetae* (Chapman).¹ CAQUETÁ PILEATED TINAMOU.**

Crypturus soui caquetae Chapman, Bull. Amer. Mus. N. H., 34, p. 635, Dec. 30, 1915—Florenia, Caquetá, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 193, 1917—Florenia and La Morelia, Caquetá, Colombia.

Crypturellus soui caquetae Peters, Bds. World, 1, p. 18, 1931—southeastern Colombia; Griscom, Bull. Mus. Comp. Zool., 72, p. 308, 1932 (crit.).

Range.—Southeastern Colombia, south of the Rio Guaviare, in Terr. of Caquetá (La Morelia, Florenia).

rufous birds of eastern Panama and northwestern Colombia" (i.e., *harterti*). With a small series at hand, we find the female—compared to *soui*, *nigriceps*, *mustelinus*, and *harterti*—darker on the upper parts, with grayer head and darker on chest than *soui* and *mustelinus*, dusker at base of throat than *nigriceps*, and much redder below than *harterti*, while the males are darker above, with grayer head than *nigriceps*, *mustelinus*, and *harterti*. It may well be questioned whether the single specimen from Malena, middle Magdalena, actually belongs here. A larger series from both the Cauca and Magdalena valleys seems indispensable to determine the value of *C. s. cauae*.

¹*Crypturellus soui caquetae* (Chapman) appears to be a transitional form between *mustelinus* and *nigriceps*. Female darker and browner above than *mustelinus*, pileum sooty, chest with a dusky band; below darker and richer in tone; a little darker and browner than *soui*, with a dusky chest band; slightly darker and browner than *cauae*. Male much darker and browner above than *mustelinus*, darker ochraceous, less tawny below; not certainly separable from *soui*. Griscom, from whose paper the characterization has been taken, states that *caquetae* might be described as two-thirds of the way from *mustelinus* to *nigriceps*, while *cauae* is only one-third of the way from *mustelinus* to *harterti*.

This rather questionable race is known only from one male and two females, and additional material is badly needed.

****Crypturellus soui nigriceps* (Chapman).¹ BLACK-PILEATED TINAMOU.**

Crypturus soui nigriceps Chapman, Amer. Mus. Nov., 96, p. 1, Nov. 19, 1923—upper Rio Suno, eastern Ecuador (type in the American Museum of Natural History, New York, examined); idem, Bull. Amer. Mus. N. H., 55, p. 149, 1926—eastern Ecuador (Rio Suno, below San José, Rio Napo, Zamora).

Tinamus parvirostris (not *Crypturus parvirostris* Wagler) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 754—Chyavetas, Peru.

Crypturus parvirostris Taczanowski, Orn. Pér., 3, p. 298, 1886—Chyavetas.

Crypturus pileatus (not *Tetrao pileatus* Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 310—Chyavetas; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. s, Chyavetas, Peru.

Crypturellus soui nigriceps Peters, Bds. World, 1, p. 18, 1931—eastern Ecuador; Griscom, Bull. Mus. Comp. Zool., 72, p. 309, 1932—Amazonian Ecuador (crit.).

Range.—Tropical zone of eastern Ecuador and northeastern Peru.

Conover Collection.—6: Ecuador (Sara-Yaco, Rio Bobonaza, 4; Ouca Yaco, Loreto, 1; Chonta-Urco, near Archidona, 1).

****Crypturellus soui mustelinus* (Bangs).² SANTA MARTA PILEATED TINAMOU.**

Crypturus soui mustelinus Bangs, Proc. Biol. Soc. Wash., 18, p. 151, June 9, 1905—"mountains near Santa Marta," Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 153, 1930); Allen, Bull. Amer. Mus. N. H., 21, pp. 277, 279, 1905—Don Amo, Santa Marta (syn., nest and eggs); Carriker, Ann. Carnegie Mus., 6, p. 379, 1910—Santa Marta (crit.).

¹*Crypturellus soui nigriceps* (Chapman): Female dark rufous, averaging darker throughout than typical *soui*, but especially so on sides of face, lower breast, and belly. The racial characters are much more pronounced in the male, which differs from *soui* by being darker, more fuscous on lower parts and much darker above, the head blacker and the rest of the dorsal surface deep fuscous brown, not rusty brown.

Two females from northern Peru (Moyobamba, San Martín, and Tamborapa, Cajamarca) agree well with an Ecuadorian series. A single specimen, marked "female," from São Paulo de Olivença, south bank of Rio Solimões, has the upper parts of *nigriceps*, but the under surface is not at all rufescent, being fuscous as in the male of that form. Perhaps it is wrongly sexed.

Additional material examined.—Ecuador: above Avila, Rio Suno, 4; upper Rio Suno, 1.—Peru: Moyobamba, San Martín, 1; Tamborapa, Cajamarca, 1.

²*Crypturellus soui mustelinus* (Bangs): Male very close to *C. s. soui*, but above less rufescent and below more buffy, less tawny; female with the crown paler, brownish instead of sooty.

The junior author found that a male from Santa Marta, when compared to two others from northern Venezuela (*C. s. andrei*), differed by lighter gray head, more reddish brown upper parts, and deeper rufous breast.

- Crypturus pileatus* (not *Tetrao pileatus* Boddaert) Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. w, Pueblo Viejo, Santa Marta; Bangs, Proc. Biol. Soc. Wash., 12, p. 132, 1898—Santa Marta (crit.).
- Crypturus soui* (not *Tinamus soui* Hermann) Allen, Bull. Amer. Mus. N. H., 13, p. 124, 1900—Minca and Bonda; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 454, 1904—Pueblo Viejo, Santa Marta.
- Crypturornis soui* subsp. Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 26, 1922—Rio Cogollo, Sierra de Perijá, Venezuela.
- Crypturornis soui mustelinus* Todd and Carriker, Ann. Carnegie Mus., 14, p. 165, 1922—Don Amo, Don Diego, Cincinnati, and Minca, Santa Marta (crit.).
- Crypturellus soui mustelinus* Peters, Bds. World, 1, p. 18, 1931—Santa Marta region; Darlington, Bull. Mus. Comp. Zool., 71, p. 369, 1931—near Rio Frio, Magdalena, Colombia; Griscom, l.c., 72, p. 308, 1932—Santa Marta region (crit.).

Range.—Santa Marta region of northeastern Colombia and extreme northwestern Venezuela (Sierra de Perijá).

Conover Collection.—3: Venezuela (Rio Cogollo, Zulia, 1); Colombia (Vista Nieve, Santa Marta, 1; Don Diego, Santa Marta, 1).

****Crypturellus soui andrei* (Brabourne and Chubb).¹ ANDRE'S PILEATED TINAMOU.**

- Crypturus soui andrei* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 321, Oct., 1914—Trinidad (type, from Caparo, Trinidad, in Tring Collection, now in the American Museum of Natural History, New York); Hartert, Nov. Zool., 34, p. 33, 1927 (note on type).
- Tinamus savi* (not *Tetrao savi* Gmelin) Léotaud, Ois. Trinidad, p. 385, 1866—Trinidad.
- Crypturus pileatus* (not *Tetrao pileatus* Boddaert) Chapman, Bull. Amer. Mus. N. H., 6, p. 85, 1894—Prinestown, Trinidad; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 182, 1922—Maracas Valley, Trinidad (eggs descr.).
- Crypturus soui* (not *Tinamus soui* Hermann) Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 163, 1901—San Julián, east of La Guaira, Venezuela.
- Crypturus soui* (subsp.?) Hellmayr, Nov. Zool., 13, p. 49, 1906—Caparo and Chaguanas, Trinidad.

¹ *Crypturellus soui andrei* (Brabourne and Chubb): Very similar to *C. s. soui*, but upper parts, sex for sex, less rufescent, bister to Prout's brown rather than cinnamon brown to auburn; females very much like the nominate race underneath, but males not so bright, dull tawny olive rather than clay color; bill generally larger.

Specimens from Las Quiguas, Carabobo, Venezuela, cannot be separated from a topotypical series, and, if *andrei* be maintained, must undoubtedly go with that form. *C. s. andrei* evidently is very close to, if not identical with, *C. s. mustelinus*, from Santa Marta, with which direct comparison could not be made. While the latter form is stated to be distinguished by the brownish pileum of the female, Hellmayr noticed this character in one out of four from Trinidad (Caparo) and in one of two females from Las Quiguas.

Additional material examined.—Trinidad: Caparo, 8.—Venezuela: Las Quiguas, Carabobo, 5.

Crypturus soui soui Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 163, 1912—Las Quiguas, Carabobo, Venezuela (sexual difference).

Crypturellus soui andrei Peters, Bds. World, 1, p. 18, 1931—Trinidad; Roberts, Trop. Agric., 11, p. 88, 1934—Trinidad; Belcher and Smooker, Ibis, 1934, p. 576—Trinidad (eggs descr.).

Range.—Island of Trinidad and north coast of Venezuela west to Carabobo.

Conover Collection.—2: Venezuela (El Trompillo, Carabobo, 1; San Rafael, near Cumanacoa, 1).

****Crypturellus soui soui* (Hermann).¹ PILEATED TINAMOU.**

Tinamus soui Hermann, Tab. Aff. Anim., p. 165, 1783—based on "Le Soui" Buffon, Hist. Nat. Ois., 4, p. 512, and Daubenton, Pl. Enl., pl. 829; Cayenne.

Tetrao pileatus Boddaert, Tabl. Pl. Enl., p. 51, Dec., 1783—based on Daubenton, Pl. Enl., pl. 829; Cayenne.

Tetrao soui Gmelin, Syst. Nat., 1, (2), p. 768, 1789—based on "Le Soui" Buffon and Daubenton; Cayenne.

Crypturus soui Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 748, "1848" [=1849]—British Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 316, 1856—part, Guiana.

Tinamus pileatus Pelzeln, Orn. Bras., 3, p. 294, 1870—part, Barra do Rio Negro [=Manáos], Brazil.

Crypturus pileatus Schlegel, Mus. Pays-Bas, 8, Tinami, p. 24, 1880—part, spec. 1, 2, Surinam and Cayenne; Salvin, Ibis, 1886, p. 181—Bartica Grove, Merumé Mts., and Roraima, British Guiana; Tristram, Cat. Coll. Tristram, p. 2, 1889—Demerara; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. a-e, British Guiana (Bartica Grove, Roraima); Berlepsch

¹ *Crypturellus soui soui* (Hermann) exhibits strongly pronounced sexual differences. The males have the back and rump, in abrupt contrast to the dusky head and hind neck, deep cinnamon brown to auburn, and the under parts, excepting the white throat and dull brownish foreneck, clay color passing into warm buff to cinnamon buff in the middle of breast and abdomen. The females are darker rufous brown above with the crown deeper sooty, while the under parts are deep Sanford's brown on breast and sides, paling into ochraceous-buff or tawny in the middle.

Birds from the north bank of the Amazon are identical with topotypes from Cayenne and specimens from British Guiana. Females from the north bank of the Rio Solimões (Manacapurú, Tonantins) are somewhat lighter and more uniform underneath, the chest not being so dark as in birds from the east and shading very gradually into the lighter color of the abdomen, while their upper parts are rather brighter rufescent. They are, however, matched by occasional specimens from British Guiana, Obidos, and Itacoatiará, and four males do not differ from the Guianan ones.

Additional material examined.—French Guiana: Cayenne, 4; Pied Saut, 2; Mana, 1.—Surinam: near Paramaribo, 1; Wanaweg, 1; Overtoom, 1.—British Guiana: Bartica Grove, 3; Roraima, 1; Merumé Mts., 1; Canuku Mts., 1; unspecified, 3.—Venezuela: Nericagua, Orinoco, 2; Arabupu, Roraima, 6.—Brazil: Obidos, 3; Faro, Rio Jamundá, 1; Manáos, 4; São Gabriel, Rio Negro, 1; Manacapurú, Rio Solimões, 4; Tonantins, Rio Solimões, 1.

and Hartert, Nov. Zool., 9, p. 122, 1902—Nericagua, Orinoco, and La Prición, Caura, Venezuela.

Crypturus soui Berlepsch, Nov. Zool., 15, p. 298, 1908—Cayenne; Ihering, Cat. Faun. Braz., 1, p. 6, 1907—part, Rio Negro; Snethlage, Bol. Mus. Goeldi, 8, p. 49, 1914—part, Rio Jamundá (Faro) and Obidos; Chubb, Bds. Brit. Guiana, 1, p. 10, 1916—Roraima, Mazaruni River, Ituribisci, Supenaam, Bartica, Camacabra Creek, Anarica River, Tiger Creek, Essequibo, Great Falls, and Demerara.

Crypturus soui soui Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 360, 1916—Nericagua, Orinoco, and La Prición, Caura; Chapman, Bull. Amer. Mus. N. H., 36, p. 191, 1917—Villavicencio, Colombia; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 40, 1918—vicinity of Paramaribo, Surinam.

Crypturellus soui soui Peters, Bds. World, 1, p. 18, 1931 (range); Griscom, Bull. Mus. Comp. Zool., 72, p. 308, 1932—Guiana and Surinam (crit.).

Crypturornis soui soui Chapman, Bull. Amer. Mus. N. H., 63, p. 61, 1931—Arabupu, Roraima.

Range.—French, Dutch, and British Guiana, south to the north bank of the lower Amazon (Obidos; Faro; Manáos) and west through southern Venezuela (Orinoco-Caura basin) to the eastern base of the east Colombian Andes (Villavicencio) and to the north bank of the Rio Solimões (Manacapurú, Tonantins).

Field Museum Collection.—1: British Guiana (Georgetown, 1).

Conover Collection.—7: French Guiana (Cayenne, 1); Brazil (Itacoatiará, 1; Rio Manacapurú, 5).

****Crypturellus soui inconspicuus* Carriker.¹ BOLIVIAN PILEATED TINAMOU.**

Crypturellus soui inconspicuus Carriker, Proc. Acad. Nat. Sci. Phila., 87, p. 315, Oct. 10, 1935—Susi (near Rurrenabaque), Rio Beni, Bolivia (type in the Academy of Natural Sciences of Philadelphia).

Crypturus soui subsp. Chapman, Bull. U. S. Nat. Mus., 117, p. 43, 1921—Rio Comerciato and Rio Cosireni, Urubamba, Peru (crit.).

Crypturellus soui nigriceps (not of Chapman) Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 241, 1930—Vista Alegre, Huánuco, and Chanchamayo, Junín, Peru (crit.).

¹ *Crypturellus soui inconspicuus* Carriker: Nearest to *C. s. albigularis*, but on average darker on the crown, and darker, more fuscous on the rest of the upper parts. The females are duller, more grayish below, lacking the bright clay color, while the males vary from dark fuscous to grayish fuscous, contrasting strongly with the bright clay-colored under parts of *albigularis*.

A female from Vista Alegre and a male from Chanchamayo do not seem to be separable from Bolivian specimens, the female having no rufescent tinge at all either above or below, and a male from Shapaja, Rio Huallaga, likewise goes with the series of *inconspicuus*, being decidedly lighter than *nigriceps*.

Additional material examined.—Peru: Shapaja, Rio Huallaga, 1; Rio Comerciato, Urubamba, 1; Rio Cosireni, Urubamba, 1.—Bolivia: Rio Surutú, Santa Cruz, 4; Rio Yapacani, Santa Cruz, 1; Cerro Hosane, Santa Cruz, 1.

Range.—Central and southern Peru (Shapaja, Rio Huallaga; Vista Alegre, Huánuco; Chanchamayo, Junín; Rio Cosireni and Rio Comerciato, Urubamba region) and eastern Bolivia.

Conover Collection.—12: Peru (Vista Alegre, Huánuco, 1; Chanchamayo, Junín, 1); Bolivia (Buenavista, Santa Cruz, 1; Rio Surutú, Santa Cruz, 8; San Carlos, Santa Cruz, 1).

****Crypturellus soui albigularis* (Brabourne and Chubb).¹ WHITE-THROATED PILEATED TINAMOU.**

Crypturus soui albigularis Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, Oct., 1914—Rio de Janeiro, Brazil (type in British Museum examined).

Crypturus soui (not *Tetrao soui* Gmelin) Lichtenstein, Verz. Doubl. Berliner Mus., p. 68, 1823—Bahia (descr.); Wagler, Syst. Av., 1, fol. 19, genus *Crypturus*, sp. 10, 1827—part, descr. of adult, Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 316, 1856—part, Rio Belmonte, Bahia.

Tinamus soui Wied, Beitr. Naturg. Bras., 4, (2), p. 522, 1833—Espírito Santo (Rio Mucuri) and Bahia (Caravellas and Rio Belmonte).

Tinamus pileatus (not *Tetrao pileatus* Boddaert) Pelzeln, Orn. Bras., 3, p. 294, 1870—part, Rio Madeira (Borba) and Matto Grosso (Engenho do Gama, Villa Bella).

Crypturus pileatus Layard, Ibis, 1873, p. 396—Nazaré, Pará; Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo, Rio de Janeiro; Schlegel, Mus. Pays-Bas,

¹ *Crypturellus soui albigularis* (Brabourne and Chubb), in opposition to *C. s. soui*, presents few sexual differences, the female being merely on average more uniformly clay color underneath. In coloration, this race closely resembles the male of *C. s. soui*, but is less rufescent above, the color of the upper parts varying from Brussels brown to Prout's brown, with the crown less dusky, more brownish. Comparison of an extensive series from Amazonia, including the type of *C. s. hoffmannsi* and a goodly number of topotypes of *C. s. decolor*, with the type of *C. s. albigularis* and other specimens from eastern Brazil fails to disclose any constant difference. Males from this wide area are absolutely the same, and while Conover thought a single female from Bahia (Serra Pallião) to be separable by its more uniform as well as darker clay-colored under parts, Hellmayr has been unable to corroborate this trifling variation, females with uniform clay-colored lower surface and others with a paler abdominal zone being found alike on the Rio Guaporé (Matto Grosso) and in Bahia. Furthermore, Conover notices that Rio Madeira birds look more like the one from Bahia examined by him than the series from the intervening country does, as the Bahia female and five from the Rio Madeira are more rufous than females from the Tapajóz and Pará region. Individual variation in this form is just as considerable as in the other races, and occasional specimens, for example, two males from Maranhão (Miritiba), by reason of their pale tawny olive under, and dull brownish upper parts, can only with difficulty be separated from certain individuals of *C. s. andrei*.

Additional material examined.—Brazil: Rio de Janeiro, 1; Caravellas, Bahia, 2; Serra Pallião, Bahia, 1; Bahia, 2; São Lourenço, Pernambuco, 1; Miritiba, Maranhão, 2; Igarapé-Assú, Pará, 1; Benevides, Pará, 1; Santarém, 4; Diamantina, Santarém, 1; Miritituba, Rio Tapajóz, 1; Boim, Rio Tapajóz, 2; Taperinha, Rio Tapajóz, 1; Villa Braga, Rio Tapajóz, 1; Cussary, south bank of lower Amazon, 1; Calama, Rio Madeira, 1; Santa Izabel, Rio Preto, Rio Madeira, 4; Humaytá, Rio Madeira, 1; falls of the Rio Madeira, 1; Hyutanahan, Rio Purús, 1; Engenho do Gama, Rio Guaporé, 2; Villa Bella de Matto Grosso, Matto Grosso, 3.

- 8, Tinami, p. 24, 1880—part, spec. 3, 4, Borba, Rio Madeira, and Rio Guaporé, Matto Grosso; Allen, Bull. Amer. Mus. N. H., 2, p. 112, 1889—Falls of the Rio Madeira, Brazil; Riker and Chapman, Auk, 8, p. 163, 1891—Diamantina, near Santarém; Salvadori, Cat. Bds. Brit. Mus., 27, p. 522, 1895—part, spec. n-r, Bahia, Rio de Janeiro, and Matto Grosso (spec. examined); Ihering, Rev. Mus. Paul., 4, p. 164, 1900—Cantagallo; Goeldi, Ibis, 1903, p. 490—Rio Capim, Pará; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 100, 1910—Miritiba, Maranhão.
- Crypturus soui* subsp. Hellmayr, Nov. Zool., 13, p. 385, 1906—Santo Antonio do Prata and Igarapé-Assú, Pará.
- Crypturus soui* (not *Tinamus soui* Hermann) Ihering, Cat. Faun. Braz., 1, p. 6, 1907—part, Matto Grosso, Borba, Rio de Janeiro, Cantagallo, Espirito Santo, Bahia, and Pará; Hellmayr, Nov. Zool., 14, p. 409, 1907—Humaytá, Rio Madeira; Snethlage, Bol. Mus. Goeldi, 8, p. 49, 1914—part, Pará, Magoary, Rio Guamá (Ourém), Rio Capim, Rio Tapajóz (Boim), and Cussary; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 244, 1924—Miritiba, Maranhão; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 69, 1926—Tury-assú, Maranhão.
- Crypturus soui soui* Hellmayr, Nov. Zool., 17, p. 420, 1910—Calama, Rio Madeira, and São Isabel, Rio Preto, Brazil; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará region (Nazaré, Igarapé-Assú, Santo Antonio do Prata, Rio Capim); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Pará.
- Crypturus soui hoffmannsi* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 321, Oct., 1914—Humaytá, Rio Madeira, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York, examined).
- Crypturornis soui soui* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 475, 1929—Miritiba, Maranhão.
- Crypturellus soui hoffmannsi* Naumburg, Bull. Amer. Mus. N. H., 60, p. 58, 1930—Engenho do Gama, Matto Grosso; Peters, Bds. World, 1, p. 18, 1931—Rio Madeira.
- Crypturellus soui albicularis* Peters, Bds. World, 1, p. 18, 1931—Pernambuco to Espirito Santo; Pinto, Rev. Mus. Paul., 19, p. 53, 1935—Serra do Palhão and Rio Gongogy (Cajazeiras), Bahia; idem, l.c., 20, p. 29, 1936—Jaraguá, Rio das Almas, Goyáz.
- Crypturellus soui decolor* Griscom and Greenway, Bull. Mus. Comp. Zool., 81, p. 417, May, 1937—Pinhy, right bank of Rio Tapajóz, Pará, Brazil (type in Museum of Comparative Zoology, Cambridge, Mass.).
- Crypturornis soui lyardi* Miranda-Ribeiro, Rev. Mus. Paul., 23, p. 767, 1938—Maranhão (Tury-assú), Pará (Utinga), and Matto Grosso (Rio Jamarý) (no type specified).

Range.—Brazil south of the Amazon, from northern Maranhão west to the Rio Purús, south to northern Matto Grosso (Rio Guaporé) and through Pernambuco (São Lourenço), Bahia (Serra Pallião, Rio Belmonte, Caravellas), Goyáz (Rio das Almas), Minas Geraes, and Espirito Santo to Rio de Janeiro (Cantagallo).

Conover Collection.—20: Brazil (Utinga, Pará, 1; Murucutú, Pará, 1; Ipomonga, Rio Capim, 1; Resacca, Rio Capim, 2; Buenos Aires, Rio Acará, 3; Tauary, Rio Tapajóz, 4; Boim, Rio Tapajóz, 2; Caxiricatuba, Rio Tapajóz, 1; Santarém, 4; Ayapua, Rio Purús, 1).

****Crypturellus obsoletus obsoletus* (Temminck).¹ BROWN TINAMOU.**

Tinamus obsoletus Temminck, Hist. Nat. Pig. Gall., 3, pp. 588, 751, 1815—Brazil;² idem, Nouv. Rec. Pl. Col., livr. 33, pl. 196, 1823—Brazil and Paraguay; Pelzeln, Orn. Bras., 3, p. 292, 1870—São Paulo (Mattodentro, Ypanemá, Itararé).

Cryptura caeruleascens Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 101, 1819—based on "Inambú azulado" Azara, No. 330; near 24° south lat. in Paraguay.

Crypturus obsoletus Lichtenstein, Verz. Doubl. Berliner Mus., p. 68, 1823—São Paulo; Wagler, Syst. Av., 1, fol. 19, spec. 11, 1827—Brazil and Paraguay; Burmeister, Syst. Uebers. Th. Bras., 3, p. 316, 1856—Nova Friburgo, Rio de Janeiro; Euler, Journ. Orn., 15, p. 418, 1867—Cantagallo, Rio (breeding habits); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 48—São Paulo (São Bento de Araraquara) and Minas Geraes (Lagõa Santa, Lagõa dos Pitas, Sumidouro); Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 22, 1880—part, spec. 1–6, 10–12, Brazil (São Paulo, Ypanemá, Itararé; Laguna, Santa Catharina); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 184, 1885—Taquara, Rio Grande do Sul; Salvadori, Cat. Bds. Brit. Mus., 27, p. 519, 1895—part, spec. a–i, Brazil (Rio de Janeiro, Rio Paraná); Ihering, Annuario Est. Rio Grande do Sul, 16, p. 153, 1899—Rio Grande do Sul, south to 30° south lat.; idem, Rev. Mus. Paul., 3, p. 459, 1899—São Paulo; idem, l.c., 4, p. 164, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 180, 1906—Morro Redondo, Serra do Itatiaya; Ihering, Cat. Faun. Braz., 1, p. 5, 1907—São Paulo (Osasco, Alto da Serra, Itapura), Minas Geraes (Vargem Alegre), and Rio Grande do Sul (São Lourenço); Hartert and Venturi, Nov. Zool., 16, p. 264, 1909—Posadas, Misiones; Lüderwaldt, Zool. Jahrb. (Syst.), 26, p. 336, 1909—Serra do Itatiaya; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 185, 407, 1910—Santa Ana, Misiones; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 458, 492, 1912—Vera Guarany, Paraná; Bertoni, Anal. Soc. Cient. Arg., 75, p. 67, 1913—Misiones; idem, Faun. Parag., p. 35, 1914—Alto Paraná, Paraguay; Ménégau, Rev. Franç. d'Orn., 1918, p. 288—Villa Lutetia, near San

¹ Miranda-Ribeiro (Rev. Mus. Paul., 23, p. 763, 1938) has lately distinguished two specimens from Matto Grosso (Vilhena and Rio Jamarý) as *Cryptuornis obsoleta hypochracea*.

² Although Azara's "Ynambú azulado" is quoted in the text, the description appears to have been made from the Brazilian specimen in the describer's private collection. This individual evidently did not pass into the Leiden Museum, because it is not listed by Schlegel in the catalogue of the tinamous belonging to that institution.

Ignacio, Misiones; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 253, 1923—Morro Redondo, Serra do Itatiaya.

Tinamus rufus Lesson, Traité d'Orn., livr. 7, p. 513, April, 1831—new name for *Tinamus obsoletus* Temminck (quoted in synonymy).

Crypturus variegatus (not *Tetrao variegatus* Gmelin) Burmeister, Journ. Orn., 1, p. 176, 1856—Nova Friburgo, Rio (eggs descr.).

Crypturus obsoletus obsoletus Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 114, 1926 Paraná (Cara Pintada, Vermelho, Candido de Abreu, Salto de Ubá); Holt, Bull. Amer. Mus. N. H., 57, p. 278, 1928—Monte Serrat up to Macieiras, Serra do Itatiaya; Pinto, Rev. Mus. Paul., 17, (2), pp. 709, 801, 1932—Valparaizo and Porto Tibiriçá, São Paulo.

Crypturellus obsoletus obsoletus Peters, Bds. World, 1, p. 17, 1931 (range); Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 135, 1935—Misiones.

Crypturellus obsoletus obsoletus Neumann, Verh. Orn. Ges. Bay., 20, p. 180, 1933—São Paulo to Rio Grande do Sul (crit.).

Crypturellus obsoletus caeruleus Neumann, Verh. Orn. Ges. Bay., 20, p. 181, 1933—Paraguay (Villa Rica) and Misiones (crit.).

Crypturellus obsoletus laubmanni Neumann, Verh. Orn. Ges. Bay., 20, p. 181, 1933—Victoria, Espirito Santo (type in Munich Museum examined).

Range.—Southeastern Brazil, from southern Minas Geraes and Espirito Santo south to Rio Grande do Sul, and the adjacent parts of Argentina (Misiones) and Paraguay (Alto Paraná and Villa Rica).¹

Field Museum Collection.—1: Brazil (Fazenda Cayoá, São Paulo, 1).

Conover Collection.—14: Brazil (Fazenda Cayoá, São Paulo, 4; Rio Grande, 1; Fazenda Morungova, Jaguariahyva, Paraná, 2); Argentina (Santa Ana, Misiones, 1; Gisela, Misiones, 4; Eldorado, Misiones, 1); Paraguay (Santa Barbara, 1).

****Crypturellus obsoletus punensis* (Chubb).² PUNO BROWN TINAMOU.**

¹ Marelli's sight record (El Hornero, 1, p. 75, 1918) from Curuzú Cuatiá, Corrientes, needs substantiation by specimens.

We regret that we cannot endorse Neumann's subdivision of this species. The type (and the only specimen known) of *C. o. laubmanni*, in the dark hue of the dorsal surface and the intense Sanford's brown instead of tawny under parts, is exactly matched by a male from Ypanemá, São Paulo, this bird being even a slight shade darker below, and we have no doubt whatever that the variation is merely individual. The development of a separable form at the northern end of the distributional area is, furthermore, altogether unlikely. It is true that birds from Misiones and Paraguay (*caeruleus*) generally have a more grayish shade above, but the coloration of the under parts varies to the same extent as in birds from southern Brazil.

Additional material examined.—Espirito Santo: Victoria, 1; Lagõa Santa, Minas Geraes, 2; Rio de Janeiro, 2; São Paulo (Ypanemá, Itararé, Curucutú), 8.—Misiones: Posadas, 1; Villa Lutetia, near San Ignacio, 1.—Paraguay: Cambyretá, 1.

² *Crypturellus obsoletus punensis* (Chubb): Similar to *C. o. obsoletus*, but darker; crown fuscous black instead of fuscous; under parts brighter as well as

Crypturus obsoletus punensis Chubb, Bull. Brit. Orn. Cl., 28, p. 30, Dec. 29, 1917—Oroya, Dept. Puno, Peru (type in British Museum examined); idem, Ibis, 1919, p. 7—Peru (Oroya) and Bolivia (Chulumani, Tilotilo).

Crypturus obsoletus (not *Tinamus obsoletus* Temminck) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 642—Tilotilo, Bolivia; Salvadori, Cat. Bds. Brit. Mus., 27, p. 521, 1895—part, spec. k, Tilotilo.

Crypturellus obsoletus punensis Peters, Bds. World, 1, p. 17, 1931 (range).

Range.—Subtropical zone of Bolivia (depts. of La Paz, Cochabamba and Santa Cruz)¹ and extreme southeastern Peru (Oroya, Dept. Puno).

Conover Collection.—9: Bolivia (Incachaca, Cochabamba, 9).

****Crypturellus obsoletus ochraceiventris* (Sztolcman).² OCHRE-BELLIED BROWN TINAMOU.**

Crypturus obsoletus ochraceiventris Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 199, Dec. 31, 1926—La Gloria, Chanchamayo, Dept. Junín, Peru (type in Warsaw Museum).

more rufous; the chest, breast, and sides inclining to chestnut; the middle line bright ochraceous-tawny rather than cinnamon; upper surface slightly more rufescent.

The senior author, on comparing two Incachaca birds with the type from Oroya, noticed that they are very slightly darker (less brownish) and more distinctly vermiculated with dusky above. On the under parts there is not the least difference. Of two Chulumani birds, one resembles those from Incachaca, the other is more like the type.

Additional material examined.—Peru: Oroya, Puno, 1 (the type).—Bolivia: Chulumani, 2; Tilotilo, 1; Samaipata, 3; Sandillani, 1; Calabatea, 1; San Jacinto, 1.

¹ While this Part was in press Bond and de Schauensee (Not. Nat. Acad. Nat. Sci. Phila., No. 93, p. 1, Oct. 14, 1941) have described *Crypturellus obsoletus crucis* from Samaipata (alt. 5,500 ft.), Santa Cruz, Bolivia (type in the Academy of Natural Sciences of Philadelphia). Through the courtesy of the describers the junior author has been able to examine the type and two other specimens from Samaipata as well as two from La Paz (Calabatea and Sandillani) and one from Cochabamba (San Jacinto). When these were compared with a series of nine from Incachaca, Bolivia, the type and the specimen from Cochabamba were much duller underneath, but the other four could be matched by specimens in the series in Field Museum. No difference in size could be found. It would seem that more specimens from Santa Cruz should be examined before this race is accepted.

² *Crypturellus obsoletus ochraceiventris* (Sztolcman): Similar to *C. o. punensis*, but much brighter chestnut rufous above, also deeper rufous below than any of the six specimens of the preceding race, with which the Chinchao bird was directly compared. A single male from La Gloria examined soon afterwards by the senior author, corresponds exactly to the notes made on the Chinchao bird. Direct comparison, however, has not been made between the two individuals.

From the Concepción specimen of *castaneus*, the Chinchao bird differs by darker (more blackish) upper part of the head and much redder, less brownish general coloration both above and below, with the vent and under tail coverts more ochraceous, less grayish. Wing, 154; bill, 22.

Birds from Monterico, Ayacucho, are stated by Sztolcman to form the transition to *C. o. punensis*.

Crypturus obsoletus (not *Tinamus obsoletus* Temminck) Tschudi, Arch. Naturg., 10, (1), p. 307, 1844—Peru; idem, Faun. Peru., Aves, p. 46, 1845—Peru; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 563—Monterico, Ayacucho, Peru; idem, Orn. Pér., 3, p. 296, 1886—part, Monterico; Salvadori, Cat. Bds. Brit. Mus., 27, p. 519, 1895—part, first race, central Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 46, 1902—Garita del Sol, Vitoc, and La Gloria, Chanchamayo, Peru.

Crypturellus obsoletus ochraceiventris Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 241, 1930—Chinchao, Huánuco, Peru (crit.); Peters, Bds. World, 1, p. 17, 1931 (range).

Range.—Subtropical zone of central Peru, in depts. of Huánuco (Chinchao), Junín (La Gloria, Garita del Sol), and (?)Ayachuco (Monterico).

Conover Collection.—1: Peru (Chinchao, Huánuco, 1).

****Crypturellus obsoletus castaneus* (Sclater).¹ CHESTNUT BROWN TINAMOU.**

Tinamus castaneus Sclater, Proc. Zool. Soc. Lond., 25, "1857," p. 277, pub. Jan. 28, 1858—Bogotá, Colombia (type in coll. of P. L. Sclater, now in British Museum, examined).

Crypturus obsoletus (not *Tinamus obsoletus* Temminck) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 22, 1880—part, spec. 7, 9, "Bogotá"; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 49—Chirimoto, Peru; idem, Orn. Pér., 3, p. 296, 1886—part, Huambo and Chirimoto,² Peru; Salvadori, Cat. Bds. Brit. Mus., 27, p. 519, 1895—part, second race, northern Peru.

Crypturus castaneus Salvadori, Cat. Bds. Brit. Mus., 27, p. 521, pl. 9, 1895—Bogotá; Chapman, Bull. Amer. Mus. N. H., 55, p. 148, 1926—Rio Suno, Ecuador.

Crypturus obsoletus chirimotanus Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 198, Dec. 31, 1926—Chirimoto, Valley of Huayabamba, Peru (type in Warsaw Museum).

Crypturellus castaneus Peters, Bds. World, 1, p. 16, 1931 (range).

Crypturellus obsoletus chirimotanus Peters, Bds. World, 1, p. 17, 1931 (range).

¹*Crypturellus obsoletus castaneus* (Sclater) is the darkest member of the group, the intensity of coloration being carried to the extreme. The crown is still blacker than in *punensis*, the dorsal plumage bright chestnut with mere traces of dusky wavy lines here and there, the edges to wing coverts and secondaries are likewise brighter, more chestnut, and the whole under surface, below the gray throat, is uniform rufous, lighter than the back (between Burnt Sienna and Chestnut), only the flanks being dusky, barred with ochraceous, and the under tail coverts blackish, largely tipped with ochraceous.

A topotype of *C. o. chirimotanus* from Guayabamba in the British Museum is in every respect identical with the type except that, being a female, it has a few blackish cross-bars on foreneck and middle of chest, and on some of the wing coverts and tertials small buffy apical spots preceded by blackish subterminal bars or spots.

Additional material examined.—Colombia: "Bogotá," 1 (the type).—Peru: Guayabamba, alt. 7,300 ft. (female, Oct. 18, 1894. O. T. Baron).

² The locality "Chamicuros" quoted by Taczanowski appears to be erroneous, since Bartlett did not obtain the species at all.

Range.—Tropical zone of eastern Colombia, eastern Ecuador (Rio Suno; Concepción, Loreto), and northern Peru (Huayabamba Valley).

Conover Collection.—1: Ecuador (Concepción, Loreto, 1).

****Crypturellus obsoletus cerviniventris* (Sclater and Salvin).
CINNAMON-BELLIED BROWN TINAMOU.**

Crypturus cerviniventris Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 512—Venezuela=vicinity of Caracas, Venezuela (type, now in British Museum, examined); Salvadori, Cat. Bds. Brit. Mus., 27, p. 520, 1895—Venezuela.

Crypturornis cerviniventris Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 25, 1922—La Azulita, Mérida (crit., nest).

Crypturellus obsoletus cerviniventris Peters, Bds. World, 1, p. 16, 1931 (range).

Range.—Tropical zone of northern Venezuela (only known from the vicinity of Caracas and La Azulita, Mérida).

Conover Collection.—1: Venezuela (La Azulita, Mérida, 1).¹

****Crypturellus obsoletus griseiventris* (Salvadori).² GRAY-BELLIED BROWN TINAMOU.**

Crypturus griseiventris Salvadori, Cat. Bds. Brit. Mus., 27, p. 521, 1895—Santarém, Amazon, Brazil (type in British Museum examined).

Crypturus obsoletus griseiventris Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 319, 1914 (char.).

Crypturellus obsoletus griseiventris Peters, Bds. World, 1, p. 17, 1931 (range).

Range.—Northern Brazil, on the banks of the Rio Tapajóz.

Conover Collection.—6: Brazil (Santarém, Pará, 1; Caxiricatuba, Rio Tapajóz, 1; Tauary, Rio Tapajóz, 4).

****Crypturellus undulatus undulatus* (Temminck). BANDED TINAMOU.**

Tinamus undulatus Temminck, Hist. Nat. Fig. Gall., 3, pp. 582, 751, 1815—based on "Ynambú listado" Azara, No. 331; Paraguay (24° south lat.); Hartlaub, Syst. Ind. Azara, p. 21, 1847—Paraguay (ex Azara); Pelzeln, Orn. Bras., 3, p. 293, 1870—No. 1109, Cuyabá, Villa Maria, Barra do

¹ The type, on comparison with the Azulita bird, agrees very well except in being rather paler brown on back and wings, paler gray on throat and sides of the head, and in having the foreneck and breast lighter, cinnamonaceous rather than rufous. In both specimens only the flanks and under tail coverts are barred with blackish brown. The type being in rather poor condition and evidently faded, the examination of fresh material from the type locality is imperative.

² *Crypturellus obsoletus griseiventris* (Salvadori): Differs from typical *obsoletus* by being much more rufous above (less brownish) and by having the whole posterior under parts from breast to vent grayish, slightly washed with buffy.

Jaurú, Caiçara, Engenho do Gama, and [Villa Bella de] Matto Grosso, Matto Grosso.

Cryptura sylvicola Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 107, 1817—based on Azara, No. 331; Paraguay.

Nothocercus scolopax Bonaparte, Tabl. Parall. Gall., p. 18, 1856—Santa Cruz, Bolivia (type in Paris Museum examined).

Tinamus radiatus G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 100, 1867—Bolivia (cotypes in British Museum examined).

Crypturus undulatus Wagler, Syst. Av., 1, fol. 19, sp. 8, 1827—Paraguay (ex Azara); Schlegel, Mus. Pays-Bas, 8, Tinami, p. 29, 1880—[Villa Bella de] Matto Grosso; Kerr, Ibis, 1892, p. 151—Rio Pilcomayo; Allen, Bull. Amer. Mus. N. H., 5, pp. 151, 158, 1893—Chapada, Matto Grosso (eggs descr.); Salvadori, Cat. Bds. Brit. Mus., 27, p. 527, 1895—lower Pilcomayo; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 185, 1910—lower Pilcomayo; Chubb, Ibis, 1910, p. 56—Sapucay, Paraguay; Grant, Ibis, 1911, p. 477—Mortero, Paraguay; Bertoni, Faun. Parag., p. 35, 1914—Paraguay.

Crypturus radiatus Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 642—Bolivia; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 704, 1906—Bolivia and Matto Grosso (crit.).

Crypturus scolopax Salvadori, Cat. Bds. Brit. Mus., 27, p. 528, pl. 12, 1895—Bolivia and Matto Grosso (Villa Maria, Chapada); idem, Boll. Mus. Zool. Torino, 15, No. 378, p. 16, 1900—Urucúm, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 7, 1907—Bolivia and Matto Grosso; Lima, Rev. Mus. Paul., 12, (2), p. 93, 1920—Matto Grosso.

Crypturus undulatus undulatus and *Crypturus undulatus scolopax* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 319, 1914 (characters).

Crypturellus undulatus undulatus Naumburg, Bull. Amer. Mus. N. H., 60, p. 59, 1930—Urucúm, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 80, 1930—Bolivia (San José, Cañada Larga, and Pózo del Tigre, Santa Cruz) and Formosa (San José); Peters, Bds. World, 1, p. 19, 1931 (range); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 365, 1934—Descalvados, Matto Grosso; Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 136, 1935 (range).

Range.—Eastern Bolivia, Matto Grosso, Paraguay (Molinas-cué, Mortero, Sapucay, Cerro Amambay), and the adjoining section of Argentina (lower Pilcomayo and San José, Terr. Formosa).¹

¹ There is no constant difference, either in coloration or markings, between birds from Paraguay (*undulatus*) and others from Bolivia (*scolopax*=*radiatus*). Specimens from Matto Grosso, as a rule, differ by narrower, less regular and more broken black barring on the back and rump, finely vermiculated upper wing coverts (instead of broadly barred with ochraceous-tawny and black), and duller rufescent foreneck, with narrower, less pronounced dusky cross-bars, while the forepart of the crown has a tendency to be lighter, less blackish in tone. However, there are many exceptions to this rule, one specimen from El Rosario, Paraguayan Chaco, and two from Bolivia having the wing coverts just as closely vermiculated as those from Matto Grosso, whereas four adults from western Matto Grosso and one male from Chapada are just as broadly banded on the back and rump as any from Paraguay. The only constant feature of the Matto Grosso birds is the duller rufescent, less regularly barred foreneck. According to the junior author's studies, they form the transition to *C. u. confusus*, being very near to it

Conover Collection.—31: Bolivia (Buenavista, Santa Cruz, 12; Rio Surutú, Santa Cruz, 1); Paraguay (Molinas-cué, Carayao, 4; Horqueta, 6; 40 km. west-southwest of Capitan Bado, Cerro Amambay, 6; 235 km. west of the Riacho Negro, Chaco, 2).

****Crypturellus undulatus confusus* (Brabourne and Chubb).¹**
HUMAYTÁ BANDED TINAMOU.

Crypturus undulatus confusus Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, pp. 319, 321, Oct., 1914—Humaytá, Rio Madeira, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York, examined).

Crypturus adpersus adpersus (not *Tinamus adpersus* Temminck) Hellmayr, Nov. Zool., 14, p. 410, 1907—Humaytá; idem, l.c., 17, p. 420, 1910—part, Humaytá.

Crypturellus undulatus confusus Peters, Bds. World, 1, p. 19, 1931—Humaytá, Rio Madeira, to the Rio Purús.

Range.—Only known from Humaytá (left bank of the Rio Madeira) and Hyutanahan (Rio Purús), Brazil.

Conover Collection.—2: Brazil (Hyutanahan, Rio Purús, 2).

****Crypturellus undulatus vermiculatus* (Temminck).²** VERMICULATED TINAMOU.

on the lower parts, but closer to *undulatus* on the upper surface. Compared to eight specimens of "*C. u. confusus*," from Hyutanahan, Rio Purús, Conover found three from Descalvados, Matto Grosso, to be lighter, less reddish above with the dark barring more conspicuous and the crown somewhat lighter, and the dusky barring on the foreneck slightly heavier and more distinct.

Additional material examined.—Bolivia: Santa Cruz, 2; unspecified, 3.—Paraguay: Rio Pilcomayo, 1; El Rosario, Paraguayan Chaco, 1; Villa Rica, 1; Sapucay, 1.—Matto Grosso: Chapada, 3; Serra da Chapada, 2; Villa Maria [=São Luiz de Cáceres], 1; Villa Bella de Matto Grosso, 4; Engenho do Gama, Rio Guaporé, 2; Barra do Jaurú, 1.

¹ *Crypturellus undulatus confusus* (Brabourne and Chubb), based on a single female, appeared to the senior author, when he examined the type several years ago, to be an intergrade between *C. u. adpersus* and *C. u. undulatus*, especially in the barring of the upper parts and foreneck. Mr. J. T. Zimmer writes that the type differs very slightly from *C. u. adpersus* (from Borba, Rio Madeira, to the Rio Tapajóz) by somewhat coarser barring above and somewhat buffier under parts, but, as another individual from the left bank of the Rio Madeira (Santo Antonio de Guajará) is not separable from the latter, he believes the type to be probably only an extreme variant of *adpersus*. Conover is inclined to refer a series from Hyutanahan, Rio Purús, to *confusus*, although he notices that the type (a female), compared to the only available Purús specimen of the same sex, is a little darker reddish above as well as on foreneck and sides of face, with the dark barring not quite so distinct. Without an adequate series from the left bank of the Rio Madeira it is utterly impossible to dispose of the name *confusus* with any degree of finality, and its acceptance for the birds of Humaytá and Hyutanahan must be regarded as purely provisional.

Additional material examined.—Brazil: Humaytá, Rio Madeira, 1; Hyutanahan, Rio Purús, 7.

² *Crypturellus undulatus vermiculatus* (Temminck) may be distinguished from the nominate race by much less rufous upper parts with the black markings

Tinamus vermiculatus Temminck, Nouv. Rec. Pl. Col., livr. 62, pl. 369, Sept., 1825—"Brésil" (type in Paris Museum examined).¹

Tinamus adpersus (not of Temminck) Lichtenstein, Verz. Doubl. Berliner Mus., p. 68, 1823—São Paulo (spec. examined).

Crypturus vermiculatus Wagler, Syst. Av., 1, fol. 19, sp. 4, 1827—Brazil (descr.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 318, 1856—Brazil (Goyáz, São Paulo); Reinhardt, Vidensk. Medd. Naturh. Foren., 1870, p. 48—Santa Anna dos Alegres, Minas Geraes.

Tinamus undulatus (not of Temminck) Pelzeln, Orn. Bras., 3, p. 292, 1870—part, Rio Paraná, São Paulo, and Rio Araguaya, Goyáz (spec. examined).

Crypturus adpersus Schlegel, Mus. Pays-Bas, 8, Tinami, p. 28, 1880—part, spec. 2, Rio Paraná, São Paulo; Salvadori, Cat. Bds. Brit. Mus., 27, p. 529, 1895—Rio Araguaya, Goyáz; Ihering, Rev. Mus. Paul., 3, p. 460, 1899—São Paulo; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 98, 1910—Piauhy (Santa Philomena, Cachoeiras, Ilha São Martin, Caissara).

Crypturus adpersus vermiculatus Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 703, 1906 (crit., range); Ihering, Cat. Faun. Braz., 1, p. 7, 1907—Franca and Itapura, São Paulo; Hellmayr, Nov. Zool., 15, p. 99, 1908—Goyáz (Rio Araguaya) and western Minas Geraes (Rio Jordão, Prov. Araguary); Ihering, Rev. Mus. Paul., 9, p. 464, 1914—Itapura, São Paulo (eggs descr.); Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 319, 1914 (char.).

Crypturornis undulatus vermiculatus Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 476, 1929—Tranqueira, Maranhão (crit.); Pinto, Rev. Mus. Paul., 17, (2), p. 801, 1932—Ilha Cantagallo, Rio Paraná, São Paulo.

Crypturellus undulatus vermiculatus Peters, Bds. World, 1, p. 19, 1931 (range); Pinto, Rev. Mus. Paul., 20, p. 29, 1936—Jaraguá and Faz. Formiga, Rio das Almas, Goyáz.

Range.—Eastern Brazil, from southern Maranhão and Piauhy south through Goyáz to western Minas Geraes (Santa Anna dos Alegres; Rio Jordão, Prov. Araguary) and northern São Paulo (Itapura; Franca; Rio Paraná).

Conover Collection.—3: Brazil (Tranqueira, Maranhão, 1; Nova Roma, Rio Paraná, Goyáz, 1; Veadeiros, Goyáz, 1).

reduced to vermiculations, and by lacking the strong rufous tone on sides of head, hind neck, and foreneck, the latter without any, or with mere traces of, dusky markings.

Birds from Maranhão and Piauhy are similar to others from more southern localities.

Additional material examined.—Piauhy: Santa Philomena, 1; Ilha São Martin, Rio Parnahyba, 1; Caissara, 1; Cachoeiras, 1.—Minas Geraes: Rio Jordão, Prov. Araguary, 1.—Goyáz: Rio Araguaya, 6.—São Paulo (unspecified), 3.—"Brazil," 1 (the type).

¹ The type was collected by the famous botanist Auguste de Saint-Hilaire either in Minas Geraes or northern São Paulo.

****Crypturellus undulatus adpersus* (Temminck).¹ TEMMINCK'S
BANDED TINAMOU.**

Tinamus adpersus Temminck, Hist. Nat. Fig. Gall., 3, pp. 585, 751, 1815—
"dans la province de Pará," Brazil (type in Berlin Museum examined).

Tinamus undulatus (not of Temminck) Pelzeln, Orn. Bras., 3, p. 292, 1870—
part, Borba, Rio Madeira (spec. examined).

Crypturus adpersus Schlegel, Mus. Pays-Bas, 8, Tinami, p. 28, 1880—part,
spec. 1, Borba; Salvadori, Cat. Bds. Brit. Mus., 27, p. 529, 1895 (synon.
in part); Ihering, Cat. Faun. Braz., 1, p. 7, 1907—part, "Pará" to Borba,
Rio Madeira; Sneath, Journ. Orn., 56, p. 517, 1908—Goyana Island,
Rio Tapajóz; idem, Bol. Mus. Goeldi, 8, p. 49, 1914—part, Rio Tapajóz
(Goyana).

Crypturus adpersus adpersus Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss.,
22, No. 3, p. 702, 1906—part, "Pará" to Borba, Rio Madeira (crit.);
idem, Nov. Zool., 17, p. 420, 1910—part, Borba, Rio Madeira; Brabourne
and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 319, 1914 (char.).

Crypturus yapura (not *Pezus yapura* Spix) Sneath, Bol. Mus. Goeldi, 8,
p. 50, 1914—Villa Braga, Rio Tapajóz.

Crypturellus undulatus adpersus Peters, Bds. World, 1, p. 19, 1931—part,
Rio Tapajóz to the Rio Madeira.

Range.—South bank of lower Amazon, from the Rio Acará to
the right bank of the Rio Madeira (Borba), Brazil.²

Conover Collection.—13: Brazil (Aparí, Rio Tapajóz, 1; Tauary,
Rio Tapajóz, 1; Caxiricatuba, Rio Tapajóz, 1; Santarém, 1; Pinhel, Rio
Tapajóz, 4; Lago do Baptista, Amazonas, 5).

****Crypturellus undulatus simplex* (Salvadori).³ MODEST
BANDED TINAMOU.**

¹ *Crypturellus undulatus adpersus* (Temminck) agrees with *C. u. vermiculatus*
in the fine dusky vermiculations of the upper parts, but is much more rufous
above (about the same tone as *C. u. undulatus*); the sides of the head and the fore-
neck are washed with dull rufescent, much less rufous, however, than in *undulatus*;
the foreneck is distinctly, though narrowly, banded with dusky, very much like
undulatus.

Five specimens from the lower Rio Madeira (Borba) agree perfectly with
the type, which probably came from the Rio Tapajóz, and another specimen from
Goyana Island in this river.

Additional material examined.—Brazil: Buenos Aires, Rio Acará, Pará, 2.

² The bird sent by Fontanier from Santa Marta and mentioned s.n. *Crypturus*
adpersus by Bonaparte (Tabl. Parall. Gall., p. 16, 1856) can hardly belong here.
Cf. also Todd and Carriker, Ann. Carnegie Mus., 14, p. 167, 1922.

³ *Crypturellus undulatus simplex* (Salvadori): Most nearly related to *C. u. vermiculatus*, but upper parts slightly more rufescent, with the dusky vermiculations evanescent on the anterior back, and flanks decidedly paler, warm buff instead of ochraceous-buff to ochraceous-tawny.

On once more comparing two birds from the Rupununi River and one from Forte São Joaquim, upper Rio Branco, the senior author finds this form separable after all. Though widely separated geographically, it is in fact much nearer to

Crypturus simplex Salvadori, Cat. Bds. Brit. Mus., 27, p. 531, 1895—Rio Rupununi, British Guiana (cotypes in British Museum examined); Chubb, Bds. Brit. Guiana, 1, p. 16, pl. 2, fig. 2, 1916—Supenaam, Great Savannas, and Rupununi River.

Tinamus undulatus (not of Temminck) Pelzeln, Orn. Bras., 3, p. 292, 1870—part, Forte do Rio Branco, Brazil (spec. examined).

Crypturus adpersus adpersus (not *Tinamus adpersus* Temminck) Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, pp. 702, 720, 1906—part, Forte do Rio Branco, Brazil, and Rupununi River, British Guiana.

Crypturus adpersus Ihering, Cat. Faun. Braz., 1, p. 7, 1907—part, Rio Branco and Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 49, 1914—part, Rio Maccurá, Brazil.

Crypturus adpersus simplex Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 319, 1914 (char.).

Crypturellus undulatus adpersus Peters, Bds. World, 1, p. 19, 1931—part, British Guiana and Rio Branco.

Range.—British Guiana and the adjoining section of northern Brazil, south to the north bank of the Amazon.

Field Museum Collection.—3: Brazil (Itacoatiará, Rio Amazonas, 1; Serra da Lua, Rio Branco, 1; Conceição, Rio Branco, 1).

Conover Collection.—5: Brazil (Lago do Canacary, Rio Amazonas, 2; Itacoatiará, Rio Amazonas, 1; Lago Cuipeua, Rio Amazonas, 1; Boca de Channel Piava, Rio Amazonas, 1).

****Crypturellus undulatus yapura* (Spix).¹ YAPURÁ Banded TINAMOU.**

C. u. vermiculatus than to its neighbor, *C. u. adpersus*, from the south bank of the lower Amazon. From the latter it may be readily distinguished by duller, less chestnut back with more reduced dusky markings, less rufescent wing coverts, and particularly by lacking the cinnamon brown suffusion as well as the dusky vermiculations on the foreneck. The color of the flanks is similar, though somewhat paler, less ochraceous. *C. u. simplex* is also closely related to *C. u. yapura*, but may be separated by somewhat lighter upper parts; decidedly paler, less brownish (drab rather than Dresden brown to Brussels brown) upper wing coverts and secondaries; paler and buffier under parts, the foreneck being less washed with brownish, the breast and upper abdomen without the light mouse gray tone; lighter, clear buff flanks with strongly defined blackish cross-bars; and generally lighter, ochraceous rather than tawny markings on under tail coverts.

Additional material examined.—British Guiana: Rio Rupununi, 3; Ourumee, 1; Great Savanna, 1; unspecified, 2.—Brazil: Forte do São Joaquim, Rio Branco, 1.

¹ *Crypturellus undulatus yapura* (Spix) differs from the other Amazonian races by decidedly grayish (instead of buffy) ground color of breast and upper abdomen; duskier foreneck; blacker crown and hind neck; darker, van-dyke brown back with more closely set blackish vermiculations; and more rufescent as well as more narrowly vermiculated upper wing coverts.

Although exceedingly variable in coloration, this form is always recognizable by the grayish tone of the anterior under parts, which is but rarely obscured here and there by buffy apical edges to the feathers. The flanks are even less buffy than in *C. u. simplex*, the interspaces between the narrower black bars being closely vermiculated with dusky. The vermiculated foreneck is generally washed with

Pezus yapura Spix, Av. Spec. Nov. Bras., 2, p. 62, pl. 78, 1825—Rio Yapura and Rio Solimões, Brazil (type in Munich Museum examined).¹

Crypturus adpersus (not *Tinamus adpersus* Temminck) Wagler, Syst. Av., 1, fol. 19, spec. 3, 1827—Brazil (descr. spec. typ. *P. yapura* Spix); Tschudi, Arch. Naturg., 10, (1), p. 307, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 46, 1845—Peru; Burmeister, Syst. Uebers. Th. Bras., 3, p. 319, 1856 (ex Spix); Selater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 311—Santa Cruz, Peru.

Tinamus undulatus (not of Temminck) Pelzeln, Orn. Bras., 3, p. 292, 1870—part, Manaqueri, Rio Solimões (spec. examined).

Crypturus balstoni Bartlett, Proc. Zool. Soc. Lond., 1882, p. 374—Elvira, northeastern Peru (type in British Museum examined); Taczanowski, Orn. Pér., 3, p. 299, 1886—Elvira, Peru; Salvadori, Cat. Bds. Brit. Mus., 27, p. 231, pl. 13, 1895—Peru (Elvira, Samiría, Santa Cruz); Ihering, Rev. Mus. Paul., 6, "1904," p. 452, 1905—Rio Juruá, Brazil.

Crypturus adpersus yapura Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 702, 704, 1906—northwestern Brazil and northeastern Peru (crit.); Ihering, Cat. Faun. Braz., 1, p. 7, 1907—Rio Juruá; Chapman, Bull. Amer. Mus. N. H., 36, p. 193, 1917—La Morelia, Caquetá, and "Bogotá," Colombia; idem, l.c., 55, p. 149, 1926—Rio Suno, Ecuador.

Crypturus yapura Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 319, 1914 (char.).

Crypturellus undulatus yapura Peters, Bds. World, 1, p. 19, 1931 (range).

Range.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia south through eastern Ecuador to eastern Peru and the adjacent parts of Brazil (from the Rio Negro to the Rio Purús).

Conover Collection.—18: Brazil (Labrea, Rio Purús, 1; lower Rio Iça, Amazonas, 1; Santo Antonio, Rio Juruá, 1; João Pessoa, Rio Juruá, 7); Ecuador (Concepción, 1; Raya Yaco, 1; Suno, Loreto,

dull brownish, much less rufescent than in *C. u. adpersus*. The back and rump are more thickly marked with finer blackish cross-lines.

Birds from northern Peru (*balstoni*) are absolutely identical with those from the Rio Solimões, while two from the Rio Purús are more buffy along the abdominal line and more olivaceous on the flanks.

Five specimens from the Rio Negro (Igarapé Cação Peirera) show decided tendencies toward *C. u. simplex* by lighter upper parts and more distinctly banded flanks, though foreneck and chest are dark (grayish) as in birds from the Rio Solimões and farther west. Birds from the Rio Purús diverge in the direction of "*C. u. confusus*," but lack the heavy barring above, and, as a whole, are much nearer to *C. u. yapura*.

Additional material examined.—Ecuador: Boca, Rio Curary, 2; Rio Suno, 1; Orosa, Rio Amazonas, 2; Puerto Indiana, 1.—Peru: Rio Samiría, 1; Elvira, 3; Santa Cruz, 2; Sarayacu, Rio Ucayali, 2; Lagarto, Rio Ucayali, 1.—Brazil: Rio Solimões, 1; Lago Manaqueri, Rio Solimões, 1; Codajáz, Rio Solimões, 2; Caviana, Rio Solimões, 2; Manacapurú, Rio Solimões, 2; Igarapé Cação Pereira, 5; Arimã, Rio Purús, 2; Jaburú, Rio Purús, 1.

¹ The type is similar to specimens from the Rio Solimões. A second example (female)—not mentioned in Spix's work—is intermediate to *C. u. simplex*.

2; Sara-Yaco, Rio Bobonaza, 1; headwaters of Rio Tigre, 1; Rio Suno, Napo-Pastaza, 1; Rio Pucuno, Oriente, 1).

****Crypturellus brevirostris brevirostris* (Pelzeln).¹ SHORT-BILLED TINAMOU.**

Tinamus brevirostris Pelzeln, Verh. Zool. Bot. Ges. Wien, 13, pp. 1128, 1130, 1863—Barra do Rio Negro [= Manáos], Brazil (type in Vienna Museum examined); idem, Orn. Bras., 3, p. 294, 1870—Barra do Rio Negro.

Crypturus brevirostris Salvadori, Cat. Bds. Brit. Mus., 27, p. 538, 1895—Barra do Rio Negro (ex Pelzeln); Ihering, Cat. Faun. Braz., 1, p. 8, 1907 (range); Sassi, Verh. Zool. Bot. Ges. Wien, 78, p. 101, 1928—Taracua, Rio Uaupés, Brazil (crit., descr. of young).

Crypturellus brevirostris Peters, Bds. World, 1, p. 20, 1931 (range); Todd, Proc. Biol. Soc. Wash., 50, p. 177, 1937—part, Tamanoir, French Guiana (crit.).

Range.—Northern Brazil (Manáos; Taracua, Rio Uaupés) north to French Guiana (Tamanoir, Mana River).

Conover Collection.—1: French Guiana (Tamanoir, Mana River, 1).

****Crypturellus brevirostris bartletti* (Sclater and Salvin).² BARTLETT'S TINAMOU.**

Crypturus bartletti Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 311—"Santa Cruz de la Sierra" and Pebas, Peru (type, from Santa Cruz, Rio Huallaga, in Salvin-Godman Collection, now in British Museum, examined); Taczanowski, Orn. Pér., 3, p. 301, 1886—Peru (Santa Cruz, Pebas, Iquitos); Salvadori, Cat. Bds. Brit. Mus., 27, p. 538, pl. 11, 1895—Santa

¹ *Crypturellus brevirostris brevirostris* (Pelzeln), though superficially resembling *C. variegatus*, differs at a glance by much smaller size; very much smaller bill (only half as large); chestnut-tinged or chestnut-barred pileum; chestnut instead of sooty sides of head; pure white inner under wing coverts; deeper rufous foreneck and chest; much less barred, sometimes nearly immaculate flanks. Wing, 138–141; bill, 21–23.

The junior author found the same differences, on comparing two adults from French Guiana (Tamanoir, Mana River) with a series of *C. variegatus* and, besides, remarked on the strongly defined white abdominal area, which was also noticed by Sassi in a bird from the Rio Uaupés, but is not present in the adult specimen from Manáos described by Pelzeln. The color of the legs is given by Natterer as yellowish gray, more ochraceous on the posterior side of the tarsus and more olive gray on the toes.

The range of this rare tinamou seems to be restricted to the country north of the Amazon (Manáos to the Rio Uaupés), whence it extends into French Guiana. The junior author is inclined to regard the female from Teffé, Rio Solimões, once referred by Hellmayr to the present species, as an erythristic example of *C. b. bartletti*.

Additional material examined.—French Guiana: Tamanoir, Mana River, 1.—Brazil: Manáos, 2.

² *Crypturellus brevirostris bartletti* (Sclater and Salvin): Very similar to *C. b. brevirostris* and of the same proportions, but pileum sooty blackish, rarely obsoletely barred with dull rufescent; the barring above slightly narrower; foreneck and chest, sex for sex, lighter, ochraceous-buff to tawny rather than tawny to

Cruz, Chamicuros, and Iquitos, Peru; Hellmayr, Nov. Zool., **14**, p. 410, 1907—Humaytá, Rio Madeira (crit.); idem, l.c., **17**, p. 421, 1910—Humaytá; Snethlage, Journ. Orn., **56**, p. 23, 1908—Cachoeira, Rio Purús; idem, Bol. Mus. Goeldi, **8**, p. 51, 1914—same locality.

(?)*Crypturus brevirostris* (not of Pelzel) Hellmayr, Nov. Zool., **14**, p. 90, 1907—Teffé, Rio Solimões (crit.).

Crypturus bartletti caroli Brabourne and Chubb, Ann. Mag. Nat. Hist., (**8**), **14**, p. 321, 1914—Humaytá, Rio Madeira (descr. of female; type in Tring Collection, now in the American Museum of Natural History, New York, examined).

Crypturellus bartletti bartletti Peters, Bds. World, **1**, p. 21, 1931 (range).

Crypturellus bartletti Todd, Proc. Biol. Soc. Wash., **50**, p. 178, 1937—Rio Purús (crit.).

Range.—Upper Amazonia, from eastern Peru through western Brazil to the left bank of the Rio Madeira (Humaytá).

Conover Collection.—9: Brazil (Hyutanahan, Rio Purús, 1; Arimã, Rio Purús, 1; Canutama, Rio Purús, 2; Igarapé do Gordão, Rio Juruá, 4; João Pessoa, Rio Juruá, 1).

****Crypturellus variegatus variegatus* (Gmelin). VARIEGATED TINAMOU.**

Tetrao variegatus Gmelin, Syst. Nat., **1**, (2), p. 768, 1789—based on "Le Tinamou varié" Daubenton, Pl. Enl., pl. 828; Cayenne.

Tinamus variegatus Temminck, Hist. Nat. Pig. Gall., **3**, pp. 576, 750, 1815—Cayenne (descr.); Wied, Reise Bras., **1**, p. 262 (8vo ed., p. 260), 1820—Morro d'Arára, Rio Mucurí, Espírito Santo; idem, l.c., **2**, p. 124, 1821—São Pedro de Alcantara, Rio Cachoeira, Bahia; idem, Beitr. Naturg. Bras., **4**, (2), p. 510, 1833—eastern Brazil; Pelzel, Orn. Bras., **3**, p. 293, 1870—Pará, Barra do Rio Negro [=Manáos], Marabitanas (Rio Negro), and Borba (Rio Madeira), Brazil.

Crypturus variegatus Wagler, Syst. Av., **1**, fol. 19, genus *Crypturus*, sp. 7, 1827—Brazil, Guiana, and Cayenne (descr.); Cabanis, in Schomburgk, Reisen

burnt Sienna; cheeks and auriculars more or less dusky, etc. Wing, 140–144; bill, 21–23.

This form is closely related to the preceding, and the characters as given remain to be confirmed by fuller series. Individual variation and sexual differences render the proper appreciation of various color details rather difficult, inasmuch as series from any locality are lacking. While birds from eastern Peru and others from Humaytá, Rio Madeira, are fairly distinguished from *brevirostris* by their sooty crown, dusky sides of the head, and ochraceous rather than rufous chest, a single female from the Rio Purús (Jaburú) is somewhat intermediate, having the blackish crown feathers obsoletely barred with dull rufescent, the sides of the head (excepting the brownish auriculars) rufous, and the breast very nearly as bright tawny as in the immature stage of *brevirostris*. A young bird from Iquitos also has the sides of the head rufous, while the hind crown is dull chestnut barred with blackish, very much as in *brevirostris*. The segregation of the two races and of their ranges, therefore, seems to be in need of further investigation.

Additional material examined.—Peru: Santa Cruz, 2; Chamicuros, 1; Iquitos, 1.—Brazil: Jaburú, Rio Purús, 1; Humaytá, Rio Madeira, 5; Teffé, Rio Solimões, 1.

- Brit. Guiana, 3, p. 748, 1849—British Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 321, 1856—Brazil and Guiana; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 32, 1880—Borba and Cayenne; Salvin, Ibis, 1886, p. 181—Bartica Grove, Camacusa, and Merumé Mts., British Guiana; Salvadori, Cat. Bds. Brit. Mus., 27, p. 535, 1895—British Guiana (Takutú River, Bartica Grove, Camacusa, Roraima, Merumé Mts.), Cayenne, and Brazil (Pará and Bahia); Berlepsch and Hartert, Nov. Zool., 9, p. 122, 1902—La Prición, Caura, Venezuela; Goeldi, Ibis, 1903, p. 499—Capim River, Pará; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 184, 1904—Charvin, Maroni, French Guiana; Hellmayr, Nov. Zool., 12, p. 305, 1905—Igarapé-Assú, Pará; Ihering, Cat. Faun. Braz., 1, p. 8, 1907 (range); Berlepsch, Nov. Zool., 15, p. 298, 1908—Cayenne; Hellmayr, l.c., 17, p. 421, 1910—Calama, Rio Madeira, and Maroins, Rio Machados, Brazil; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 82, 97, 1912—Rio Acará and Pará localities; Snethlage, Bol. Mus. Goeldi, 8, p. 50, 1914—Pará, Rio Capim (Resacca, Ig. Cauaxy-i), Rio Acará, and Obidos; Chubb, Bds. Brit. Guiana, 1, p. 12, 1916 (many localities); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 360, 1916—Nericagua, Orinoco River, and La Prición, Caura, Venezuela; Beebe, Trop. Wild Life, 1, pp. 127, 268, 1917—Bartica Grove (nesting habits); Lima, Rev. Mus. Paul., 12, (2), p. 96, 1920—Ilhéos to Belmonte [= Itabuna], Bahia; Beebe, Zoologica, (N.Y.), 6, pp. 195–227, 1925 (life history).
- Tinamus bimaculatus* G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 101, 1867—South America (descr. of young; type in British Museum examined).
- Crypturus tetrao* ("Boddaert")¹ Mathews and Iredale, Austr. Av. Rec., 3, No. 2, p. 47, Nov., 1915—based on Daubenton, Pl. Enl., pl. 828; Cayenne.
- Crypturus variegatus variegatus* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (char.); Beebe, Zoologica, (N.Y.), 6, pp. 195–227, 1925—British Guiana (anat., habits).
- Crypturellus variegatus variegatus* Peters, Bds. World, 1, p. 20, 1931 (range); Todd, Proc. Biol. Soc. Wash., 50, p. 175, 1937 (crit.).
- Crypturus variegatus bimaculatus* Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (char.).
- Crypturellus variegatus* Pinto, Rev. Mus. Paul., 19, p. 54, 1935—Rio Jucurucú (Braço do Sul), Cachoeira Grande, and Itabuna, Bahia.
- Crypturus variegatus salvini* (not *C. salvini* Salvadori) Chapman, Bull. Amer. Mus. N. H., 36, p. 193, 1917—La Morelia, Caquetá, Colombia.
- Crypturellus variegatus transamazonicus* Todd, Proc. Biol. Soc. Wash., 50, p. 176, Oct. 28, 1937—Santarém, Brazil (type in the Carnegie Museum, Pittsburgh).
- Orthocrypturus variegatus superciliosus* Miranda-Ribeiro, Rev. Mus. Paul., 23, p. 741, 1938—Pará (São Joaquim, Utinga), Manacapurú, and Rio Juary, Matto Grosso (no type specified).
- Orthocrypturus variegatus lakoi* Miranda-Ribeiro, Rev. Mus. Paul., 23, p. 743, 1938—Alto Jatôa (south of Serra do Imery, Venezuelan border) and Lago Mapixi, Amazonas, Brazil (no type specified).

¹ "Tetrao" in Boddaert's Tabl. Pl. Enl., p. 51, 1789, is not proposed as a specific name, but indicates the genus to which the author would refer the "Tinamou varié."

Range.—The Guianas, west through the Orinoco basin to the eastern base of the east Colombian Andes (La Morelia, Caquetá); Brazilian Amazonia from Pará west to the Rio Solimões and the Rio Juruá, south to the Rio Machados on the confines of Matto Grosso¹ and the wooded region of southeastern Brazil, in states of Bahia (São Pedro de Alcantara, Rio Cachoeira; Rio Jucurucú; Cachoeira Grande; Itabuna), Minas Geraes (São Benedicto, Rio Manhuassú), and Espírito Santo (Rio Mucurí; Baixo Guandú).

Field Museum Collection.—17: British Guiana (Mazaruni River, 1; Potaro, 1; Kaieteur Falls, 1; Essequibo, Oko Mountains, 1; Boundary Camp, Itabu Creek, upper New River, 10; Middle Base Camp, Itabu Creek, upper New River, 3).

Conover Collection.—35: French Guiana (Tamanoir, Mana River, 1); British Guiana (unspecified, 1; Essequibo, Oko Mountains, 1); Brazil (Villa Braga, Rio Tapajóz, 2; Caxiricatuba, Rio Tapajóz, 3; Tauary, Rio Tapajóz, 3; Boim, Rio Tapajóz, 6; Lago Cuipeua, near Obidos, 2; Labrea, Rio Purús, 5; Canutama, Rio Purús, 3; João Pessoa, Rio Juruá, 1; Igarapé do Gordão, Rio Juruá, 2; Igarapé Grande, Rio Juruá, 2; Rio Manacapurú, Amazonas, 3).

****Crypturellus variegatus salvini* (Salvadori).² SALVIN'S VARIEGATED TINAMOU.**

Crypturus salvini Salvadori, Cat. Bds. Brit. Mus., 27, p. 537, 1895. Sarayacu, eastern Ecuador (cotypes in British Museum examined).

¹ Birds from Manáos and Venezuela agree well with Guianan skins. The authors are unable to substantiate the claims of *C. v. transamazonicus* to recognition. Birds from south of the Amazon are perhaps on average a little more broadly barred above, but a goodly number from British Guiana and two from near Obidos are exactly alike, and it seems that the width of the barring varies a great deal, irrespective of locality. As to the other alleged character of *transamazonicus*, we find Guianan birds to be on average more white on the abdomen than those from south of the Amazon River, which is just the opposite of Mr. Todd's statement. A single Bahia skin does not appreciably differ from northern specimens.

Additional material examined.—French Guiana: Cayenne, 3; Tamanoir, Mana River, 4.—British Guiana: Bartica Grove, 4; Camacusa, 5; Caramang River, 1; Takutú River, 1; Kamuni River, 2; Mazaruni River, 1; Moraballi Creek, 1; Roraima, 1.—Venezuela: La Prición, Caura, 3.—Brazil: Pará district, 5; Manáos, 4; Borba, Rio Madeira, 1; Calama, Rio Madeira, 4; Maroins, Rio Machados, 1; Bahia, 1.

² *Crypturellus variegatus salvini* (Salvadori): Very similar to the nominate race, but differs by having the ochraceous bands broader and the dark ones deeper black, giving the upper parts a darker appearance, while the dusky and buffy barring on the flanks is reduced to a few scattered markings. Single individuals are, however, hard to separate, and the race is not very well marked.

Additional material examined.—Eastern Ecuador: Sarayacu, 3; Rio Suno, 3; Rio Curaray, 1.

Crypturus variegatus salvini Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (char.); Chapman, Bull. Amer. Mus. N. H., 55, p. 149, 1926—Rio Suno, Ecuador.

Crypturellus variegatus salvini Peters, Bds. World, 1, p. 20, 1931 (range); Todd, Proc. Biol. Soc. Wash., 50, p. 176, 1937 (crit.).

Range.—Tropical zone of eastern Ecuador.

Conover Collection.—4: Ecuador (Concepción, 1; Ouca Yaco, Loreto, 1; headwaters of Rio Tigre, 2).

***Crypturellus rubripes* (Taczanowski).¹ JELSKI'S TINAMOU.**

Crypturus rubripes Taczanowski, Orn. Pér., 3, p. 303, 1886—Lechugal, Rio Zurumilla, Dept. Tumbes, Peru (type in Raimondi Collection, now in San Marco University, Lima); Salvadori, Cat. Bds. Brit. Mus., 27, p. 514, 1895 (ex Taczanowski).

Crypturellus rubripes Peters, Bds. World, 1, p. 20, 1931 (range).

Range.—Northwestern Peru (Lechugal, Rio Zurumilla, Dept. Tumbes).

***Crypturellus noctivagus atrocapillus* (Tschudi).² BLACK-CAPPED RED-FOOTED TINAMOU.**

Crypturus atro-capillus Tschudi, Arch. Naturg., 10, (1), p. 307, 1844—Peru (type in Neuchâtel Museum).

Crypturus atrocapillus Tschudi, Unters. Faun. Peru., Orn., p. 284, 1846—Peru.

Tinamus atrocapillus Taczanowski, Orn. Pér., 3, p. 294, 1886—Peru.

Crypturus atricapillus Salvadori, Cat. Bds. Brit. Mus., 27, p. 532, 1895—Peru (descr. of type); Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (char.).

Crypturellus atrocapillus Peters, Bds. World, 1, p. 20, 1931 (range).

Range.—Peru (region not definitely recorded).

¹ *Crypturellus rubripes* (Taczanowski), known only from the type, is of obscure relationship, and although a detailed manuscript description drawn up by the late Count Berlepsch from the specimen has been available to the senior author, he is unable to say to what other species it may be related. The most striking feature seems to be a wide superciliary stripe, grayish rufescent anteriorly and distinctly buff from the eye to the sides of the hind crown.

² *Crypturellus noctivagus atrocapillus* (Tschudi) is only known from a few specimens secured by Tschudi in some part of central Peru, probably in the Department of Junín. Judging from one of the cotypes in the British Museum, this seems to be a typical *Crypturellus*, with the hind part of the tarsus smooth without prominent edges to the scutes and the same proportions of the toes as in other species. Compared with *C. noctivagus erythropus*, it differs by longer bill; wholly coal-black pileum with the crown-feathers elongated into a distinct crest; much darker, warm sepia upper parts, waved all over with narrow blackish bars; mars brown instead of tawny auriculars (only lores and indistinct superciliaries deep tawny); deep tawny throat; fuscous foreneck and chest (waved with dusky), forming an extensive dark area and extending down over the sides of the breast; deeper tawny middle line inclining to Burnt Sienna anteriorly. Wing, 174; bill, 30.

****Crypturellus noctivagus garleppi* (Berlepsch).¹ GARLEPP'S
RED-FOOTED TINAMOU.**

Crypturus garleppi Berlepsch, Bericht 17. Jahresvers. Allg. Deuts. Orn. Ges., 1892, p. 13, Dec. 25, 1892—Santa Cruz de la Sierra, Bolivia (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); idem, Journ. Orn., 40, p. 454, 1892 (reprint); Salvadori, Cat. Bds. Brit. Mus., 27, p. 533, 1895—Santa Cruz, Bolivia.

Crypturus garleppi affinis Chubb, Ibis, (11), 1, p. 8, Jan., 1919—Rio Blanco, La Paz, Bolivia (type in British Museum examined).

Crypturellus garleppi garleppi Peters, Bds. World, 1, p. 20, 1931—Santa Cruz.

Crypturellus garleppi affinis Peters, Bds. World, 1, p. 20, 1931—Rio Blanco.

Range.—Tropical zone of Bolivia (Rio Blanco, eastern La Paz; Santa Cruz de La Sierra; Rio Surutú and San Carlos, Santa Cruz).

Conover Collection.—4: Bolivia, Santa Cruz (Rio Surutú, 2; San Carlos, 2).

***Crypturellus noctivagus noctivagus* (Wied). WIED'S RED-FOOTED
TINAMOU.**

Tinamus noctivagus Wied, Reise Bras., 1, p. 160 (8vo ed., p. 158), 1820—Muribacca, Rio Itabapuaana, Espirito Santo, Brazil (type in coll. of Prince Wied, now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 272, 1889); idem, Beitr. Naturg. Bras., 4, (2), p. 504, 1833—part, Rio de Janeiro to the Rio Espirito Santo, Brazil.

Crypturus noctivagus Burmeister, Syst. Uebers. Th. Bras., 3, p. 320, 1856—part, Rio de Janeiro (ex Wied); Euler, Journ. Orn., 15, p. 418, 1867—Cantagallo, Rio de Janeiro (eggs descr.); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 47—Lagõa dos Pitos, near Lagõa Santa, Minas Geraes; Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 33, 1880—part, "Montevideo," errore, = southern Brazil; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 183, 1885—Taquara and Arroio Grande, Rio Grande do Sul; Salvadori, Cat. Bds. Brit. Mus., 27, p. 539, 1895—part, descr. of "adult male" and spec. c, "Lagõa dos Patos,"

¹ *Crypturellus noctivagus garleppi* (Berlepsch) again is a little-known form allied to *C. noctivagus atrocipillus*. The senior author has seen the type, but has been unable to compare it with the Peruvian bird. We do not understand why Chubb proposed a different name for the Rio Blanco specimen in the British Museum, since his description corresponds very well to the notes on Berlepsch's type. Both are females.

Since the above was written, four specimens of *C. n. garleppi* have been received by the junior author, and two others in the Carnegie Museum have been examined. On comparison with five specimens of *C. n. erythropus* (all males) from the vicinity of Obidos, two males of *garleppi* differ by darker (more fuscous) upper parts, waved with narrow blackish vermiculations; darker, less reddish auriculars; darker foreneck and chest (with dusky vermiculations); darker, more rufescent breast and belly.

Additional material examined.—Santa Cruz: Rio Surutú, 2; Santa Cruz, 1.—La Paz: Rio Blanco, 1.

Rio Grande do Sul; Ihering, *Annuario Est. Rio Grande do Sul*, 16, p. 153, 1899—Mundo Novo; idem, *Rev. Mus. Paul.*, 3, p. 461, 1899—Peruhybe, São Paulo; idem, *l.c.*, 4, p. 164, 1900—Cantagallo, Rio de Janeiro; Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 720, 1906—part, São Paulo (crit.); Ihering, *Cat. Faun. Braz.*, 1, p. 8, 1907—São Paulo (Peruhybe), Santa Catharina (Colonia Hansa), and Espirito Santo.

Crypturellus noctivagus noctivagus Peters, *Bds. World*, 1, p. 22, 1931 (in part).

Range.—Southeastern Brazil, from southern Minas Geraes and Espirito Santo to Rio Grande do Sul.¹

****Crypturellus noctivagus zabele* (Spix).² ZABELE RED-FOOTED TINAMOU.**

Pezus zabele Spix, *Av. Spec. Nov. Bras.*, 2, p. 62, pl. 77, 1825—"in limite sylvarum campestrum (Catingha)," Brazil; we suggest Oeiras, Piauhys (type [male] in Munich Museum examined; cf. Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 701, 1906).

¹ Birds from São Paulo (Iguapé) and Santa Catharina (Jaraguá) agree well together, notably in the reduced light markings on remiges and wing coverts. They are all marked "male" and correspond to Salvadori's description of the "adult male" with the exception of having merely a number of cinnamonaceous freckles in the superciliary region instead of a broad stripe. Two males from the Rio Doce, Espirito Santo, which may fairly be assumed to represent typically *T. noctivagus*, are similar in coloration to the southern birds, but approach *C. n. zabele* by the widely barred wing coverts and remiges, the light bands being, however, neither as broad nor as pale as in the northern race. Tschudi's Peruvian record (*Arch. Naturg.*, 10, [1], p. 307, 1844; idem, *Faun. Peru., Orn.*, p. 46, 1845; undè Taczanowski, *Orn. Pér.*, 3, p. 302, 1886) has never been confirmed and may refer to *C. n. atrocapillus*.

Material examined.—Espirito Santo: Rio Doce, 2.—"Minas Geraes," 1. —São Paulo: Iguapé, 2.—Santa Catharina: Jaraguá, 2.

² *Crypturellus noctivagus zabele* (Spix), in the light of more adequate material recently examined by the senior author, seems to be separable as a paler northern form. Compared to six adult males from Espirito Santo to Santa Catharina, four from Bahia and Piauhys may be distinguished by lacking the dark neutral zone on the mantle, the entire back from the hind neck onwards being auburn to chestnut with just a faint grayish tinge anteriorly; by having the remiges and upper wing coverts much more broadly barred with pinkish buff; well-marked superciliaries of light buff to warm buff (merely suggested by cinnamonaceous freckles in the nominate race); less rufescent throat; decidedly paler foreneck which, instead of deep neutral gray, is neutral gray, frequently with apical edges of cinnamon to the feathers; cinnamon to orange cinnamon instead of deep tawny breast; finally, unmarked warm buff abdomen, only the sides being banded with blackish. Spix's type is practically identical with a male from Piauhys, while one from Bahia is very rufous above. Two specimens marked "female" by the collectors differ from the males by having the foreneck and chest deep hazel regularly banded across with dusky, and the superciliaries remarkably wide. We do not know whether this is the regular garb of the adult female, since one shows signs of immaturity in the presence of buffy apical dots to the crown feathers. An unsexed Bahia specimen is similar, but we have not yet seen this plumage from the range of the nominate race. Salvadori's "sexes" of *C. noctivagus* evidently refer to the two races, his description of the adult male having clearly been based upon the male from Rio Grande do Sul, that of the female upon the Bahia skins.

Additional material examined.—Piauhys: Serra do Parnaguá, 1 (male); Saco Gorge, road from Parnaguá to Gilbúes, 1 (male).—Bahia: Bahia, 3 (male, female, unsexed); Lamarão, 1 (female).—"Brazil," 1 (the type, male).

Tinamus noctivagus (not of Wied, 1820) Wied, Reise Bras., 2, pp. 111, 145, 158, 1821—Bahia (Rio Ilhéos; Boqueirão, Rio Pardo; Serra do Mundo Novo, Rio Pardo); idem, Beitr. Naturg. Bras., 4, (2), p. 504, 1833—part, Belmonte and Ilhéos, Bahia; Pelzeln, Orn. Bras., 3, p. 293 (note 1), 1870—Bahia (spec. examined).

Crypturus noctivagus Wagler, Syst. Av., 1, folg. 19, sp. 6, 1827 (descr. of spec. typ. *P. zabele*); Burmeister, Syst. Uebers. Th. Bras., 3, p. 320, 1856 (in part); Schlegel, Mus. Pays-Bas, 8, Tinami, p. 33, 1880—part, Bahia; Forbes, Ibis, 1881, p. 360—Garanhuns, Pernambuco; Salvadori, Cat. Bds. Brit. Mus., 27, p. 539, 1895—part, descr. of "female" and spec. a, b, Bahia; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 720, 1906—part, Bahia (crit.); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 98, 1910—Serra do Parnaguá and Saco Gorge, Piahy (spec. examined); idem, l.c., p. 246, 1924—Piahy (habits).

Crypturornis noctivagus noctivagus Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 477, 1929—near Parnaguá, Piahy.

Crypturellus noctivagus noctivagus Peters, Bds. World, 1, p. 22, 1931 (range in part); Pinto, Rev. Mus. Paul., 19, p. 54, 1935—Rio Gongogy and Rio Jucurucú (Cachoeira Grande), Bahia.

Range.—Northeastern Brazil, from Bahia north to Pernambuco and southern Piahy.

Field Museum Collection. 1: Brazil (Macaco Secco, near Andarahy, Bahia, 1).

****Crypturellus noctivagus erythropus* (Pelzeln).¹ RED-FOOTED TINAMOU.**

¹*Crypturellus noctivagus erythropus* (Pelzeln): Adult male nearest to *C. n. zabele*, but with markedly shorter wings and bill; no striking pale (light buff to ochraceous-buff) supercilary stripe, this region being tawny like the sides of the head; middle and lower back nearly immaculate instead of alternately banded with black and rufous; upper wing coverts and outer webs of secondaries with mere traces of scattered black spots and buffy dots instead of being broadly barred with black and ochraceous or buff; abdomen and flanks darker, ochraceous-buff rather than warm buff. Females and immature males approach *C. n. zabele* by barred lower back, rump, wing coverts, and outer webs of secondaries; however, the foreneck and upper chest are mouse gray, more or less washed with brownish, as in the males, and are by no means rufous barred with blackish as is the case in the supposed females of *zabele* from Bahia. Wing, 162–170, (female) 155–165; bill, 26–28.

Direct comparison of six British Guiana skins (*dissimilis*) with ten from Manáos (including the type of *T. erythropus*) fails to disclose any constant difference. The color of the throat, said to be rufous in *dissimilis* and white in *erythropus*, varies individually just as much as in the allied *C. strigulosus*. Among six males from Manáos, it is pure white in one, tawny mixed with white along the middle in two, ochraceous-tawny in two others, and tawny in the sixth. Two birds from British Guiana (Ituribisci River and an unspecified locality) and an adult male from Forte do São Joaquim, on the upper Rio Branco, have the throat pure white, while it is entirely ochraceous-buff in three others, including two from Quonga. In the coloration of the sides of the head there is not the least difference, the two series varying, in the tone of the rufous, exactly within the same limits. Several birds from Quonga, all in very fresh plumage, indeed have the mouse gray prepectoral area clearer, less tinged with brownish, and consequently more

Tinamus erythropus Pelzeln, Verh. Zool. Bot. Ges. Wien, 13, pp. 1127, 1129, 1863—Barra do Rio Negro [= Manáos], Brazil (cotypes in Vienna Museum examined); idem, Orn. Bras., 3, p. 293, 1870—Barra do Rio Negro and Forte do São Joaquim, Rio Branco.

Tinamus longirostris G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 101, 1867—locality unknown (type in British Museum examined).

Crypturus noctivagus (not *Tinamus noctivagus* Wied) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 748, 1849—British Guiana.

Crypturus strigulosus (not *Tinamus strigulosus* Temminck) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, pp. 252, 254—Cerro Azul of "Guiguc," south of Lake Valencia, Venezuela (spec. examined).

Crypturus erythropus Schlegel, Mus. Pays-Bas, 8, Tinami, p. 34, 1880—Barra do Rio Negro and "Amazonia"; Salvadori, Cat. Bds. Brit. Mus., 27, p. 534, pl. 10, 1895—Barra do Rio Negro and Forte do Rio Branco, Brazil (spec. examined); Ihering, Cat. Faun. Braz., 1, p. 8, 1907 (range); Hellmayr, Nov. Zool., 14, p. 39, 1907—Obidos, Brazil; Sneath, Bol. Mus. Goeldi, 8, p. 50, 1914—Rio Jamundá (Faro), Brazil; Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (diag.).

Crypturus dissimilis Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—Quonga and Corentyne River, British Guiana (cotypes, from Quonga, in the British Museum examined); Chubb, Bds. Brit. Guiana, 1, p. 11, pl. 2, fig. 1, 1916—Kamani River, Ituribisci, Abary River, Quonga, and Corentyne River; Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (diag.).

Crypturus cinnamomeus (not *Tinamus cinnamomea* Lesson) Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. k', l', Venezuela and Cerro Azúl Guigua.

distinctly defined from the ochraceous tawny of the breast, but other Guianan specimens as well as the one from the Rio Branco, are indistinguishable from Manáos birds. *C. cinnamomeus spencei* likewise proves to be identical with *erythropus*. This alleged race was based on an unsexed specimen sent by Spence from the vicinity of Caracas (the type) and a bird secured in November, 1868, by Anton Goering on the Cerro Azúl de Guigua, south of Lake Valencia, in northern Venezuela. According to the extent of the barring above to the middle back, and the regular alternate bars of bright buff and black on the upper wing coverts and outer webs of secondaries, there is no doubt that the type and also Goering's example, though sexed as "male," are both females. Compared with females from Manáos and Quonga, they agree in every particular except in having the sides and flanks more extensively barred with black. However, an adult male from San Esteban, Carabobo (Carnegie Museum, No. 35319), was found by Conover and Hellmayr, who independently compared it with adequate material from the lower Amazon, to be indistinguishable from Obidos specimens, and the junior author, furthermore, could not discover any tangible difference, even in the barring of the flanks, between three skins from the Paria Peninsula (Cariquito) and others from Lago Cupeua. The birds from the north coast of Venezuela perhaps have on average slightly longer wings (169–175, against 158–170 mm.), but this trifling divergency seems hardly sufficient to justify the recognition of *spencei*.

Additional material examined.—Brazil: Manáos, 10; Obidos, 12; Forte do São Joaquim, Rio Branco, 1.—British Guiana: Quonga, 3; Ituribisci River, 1; Abary River, 1; Cammoon Creek, 1; unspecified, 3.—Venezuela: San Esteban, Carabobo, 1; Cerro Azúl de Guigua, south of Lake Valencia, 1; vicinity of Caracas, 2; Cariquito, Paria Peninsula, 3.

Crypturus cinnamomeus spencei Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, pp. 320, 322, Oct., 1914—Venezuela (type in British Museum examined); Chubb, Bull. Brit. Orn. Cl., 38, p. 29, Dec. 29, 1917—Caracas, Venezuela (again described as new).

Crypturus columbianus (not of Salvadori) Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 190, 1913—Cariacuito, Paria Peninsula, Venezuela (spec. examined).

Crypturellus cinnamomeus spencei Peters, Bds. World, 1, p. 22, 1931 (range).

Crypturellus noctivagus dissimilis Peters, Bds. World, 1, p. 22, 1931—eastern Venezuela and British Guiana south to Brazil (Obidos).

Crypturellus erythropus Peters, Bds. World, 1, p. 22, 1931 (range).

Range.—Northern Venezuela (San Esteban, Carabobo; Cerro Azul de Guigua, south of Lake Valencia; vicinity of Caracas; Cariacuito, Paria Peninsula) and British Guiana, south to the north bank of the Amazon in Brazil, from Manáos east to Obidos.

Field Museum Collection.—2: British Guiana (Corentyne River, 2).

Conover Collection.—7: Brazil (Obidos, 1; Lago Cuipeua, near Obidos, 4; Lago do Serpa, Rio Amazonas, Amazonas, 1; Igarapé Arriba, Rio Amazonas, Amazonas, 1).

****Crypturellus duidae* Zimmer.¹ DUIDA TINAMOU.**

Crypturellus noctivagus duidae Zimmer, Proc. Biol. Soc. Wash., 51, p. 48, March 18, 1938—Mount Duida, Venezuela (type in the American Museum of Natural History, New York).

Range.—Mount Duida, southern Venezuela.

Conover Collection.—1: Venezuela (Campamento del Medio, Mount Duida, 1).

****Crypturellus strigulosus* (Temminck).² BRAZILIAN TINAMOU.**

Tinamus strigulosus Temminck, Hist. Nat. Fig. Gall., 3, pp. 594, 752, 1815—"dans la province de Pará," Brazil (type lost, formerly in coll. of C. J.

¹ *Crypturellus duidae* Zimmer: Distinguished from *C. n. erythropus* by dark (grayish olive) feet; clear rufous chest without any grayish tinge; much more intense rufous neck and head, and, in the female sex, by the narrow and paler bars on a more blackish ground on rump, upper tail coverts, and outer surface of the wings.

Because of the very distinct difference in the coloration of the legs, it would seem best, for the present at least, to consider *duidae* as distinct from *noctivagus*.

² *Crypturellus strigulosus* (Temminck), though nearly allied to *C. noctivagus erythropus* (Pelzelin), nevertheless differs very markedly by dusky instead of bright red feet and by lacking the ochraceous-tawny color underneath. The duller and paler gray of the foreneck extends onto the breast, which is sometimes slightly washed with buffy; the middle of lower breast and abdomen is whitish or buffy white, occasionally vermiculated with dusky; and the flanks are banded with black and buffy. As in the allied species, the females are much more strongly barred on rump and upper tail coverts, and have the wing coverts and outer webs of remiges regularly banded with black and buff, while the males show there only a few scattered small markings of buff and black. The color of the throat varies, regardless of sex, from nearly white to bright rufous. The type of *C. hell-*

Temminck, subsequently in Leiden Museum; cf. Schlegel, Mus. Pays-Bas, 8, Tinami, p. 28, 1880; Pelzeln, Orn. Bras., 3, p. 293, 1870—Cidade de Matto Grosso, Borba (Rio Madeira), and Pará (spec. examined).

Crypturus strigulosus Wagler, Syst. Av., 1, fol. 19, genus *Crypturus*, sp. 9, 1827—Brazil (descr. spec. typ. in Leiden Museum); Burmeister, Syst. Uebers. Th. Bras., 3, p. 322, 1856—"between Bahia and Pernambuco," errore; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 27, 1880—"Nouvelle Grenade," errore; Salvadori, Cat. Bds. Brit. Mus., 27, p. 533, 1895—Pará and Matto Grosso; Goeldi, Ibis, 1903, p. 499—Resacca, Rio Capim, Pará; Ihering, Cat. Faun. Braz., 1, p. 7, 1907 (range); Hellmayr, Nov. Zool., 14, p. 411, 1907—Humaytá, Rio Madeira; idem, l.c., 17, p. 420, 1910—Borba and Humaytá, Rio Madeira; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará and Rio Capim; Sneath, Bol. Mus. Goeldi, 8, p. 50, 1914—Rio Guamá (Ourém), Rio Capim (Resacca), and Rio Acará, Pará; Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 320, 1914 (char.); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Pará.

Crypturellus strigulosus Naumburg, Bull. Amer. Mus. N. H., 60, p. 59, 1930—Villa Bella de Matto Grosso.

Crypturellus strigulosus strigulosus Peters, Bds. World, 1, p. 22, 1931 (range).

Crypturus hellmayri Brabourne and Chubb, Ann. Mag. Nat. Hist., (8), 14, p. 322, 1914—Humaytá, Rio Madeira (type in Tring Collection, now in the American Museum of Natural History, New York, examined); Hartert, Nov. Zool., 34, p. 33, 1927 (crit.).

Crypturellus strigulosus hellmayri Peters, Bds. World, 1, p. 22, 1931 (range).

Range.—Brazil, south of the Amazon, from the Pará district west to eastern Peru (Rio Ucayali) and south to western Matto Grosso (Villa Bella de Matto Grosso).

Conover Collection.—21: Brazil (Murutucú, Pará, 1; Serraria Cabral, Rio Acará, 4; Buenos Aires, Rio Acará, 2; Ipomonga, Rio Capim, 1; Resacca, Rio Capim, 1; Santarém, Pará, 2; Tauary, Rio Tapajóz, 3; Caxiricatuba, Rio Tapajóz, 3; Boim, Rio Tapajóz, 3; Igarapé do Gordão, Rio Jurua, 1).

***Crypturellus casiquiare* (Chapman).¹ CASSIQUIARE TINAMOU.**

mayri (an immature male) is much duller, less rufous, above with a slaty cast, when compared to specimens from Borba and Pará. However, another adult male from Villa Bella de Matto Grosso, which geographically should belong to this alleged form, does not differ in the least from lower Amazonian skins, and we believe the Humaytá bird to be an individual aberration. Wing of females, 160–167.

The appearance on the Rio Cassiquiare of *C. casiquiare*, a probable representative of the present species, induces us to regard *C. strigulosus*, at least provisionally, as specifically distinct.

Additional material examined.—Brazil: Pará, 3; Taperinha, Rio Tapajóz, 2; Borba, Rio Madeira, 2; Humaytá, Rio Madeira, 1; Hyutanahan, Rio Purús, 2; Villa Bella de Matto Grosso, 1.

¹ *Crypturellus casiquiare* (Chapman): "Crown, sides of head, and nape chestnut, the black bases of the feathers more or less exposed on the crown; hind neck

Crypturornis casiquiare Chapman, Amer. Mus. Nov., 380, p. 3, Oct. 21, 1929
—right bank of Rio Cassiquiare at its junction with the Rio Guainia,
Venezuela (type in the American Museum of Natural History, New
York, examined).

Crypturellus casiquiare Peters, Bds. World, 1, p. 23, 1921 (range).

Range.—Only known from the Rio Cassiquiare at its junction
with the Rio Guainia in extreme southern Venezuela.

****Crypturellus idoneus* (Todd).¹ SANTA MARTA TINAMOU.**

Crypturus idoneus Todd, Proc. Biol. Soc. Wash., 32, p. 117, June 27, 1919—
Bonda, Colombia (type in Carnegie Museum, Pittsburgh, examined).

Crypturus columbianus (not of Salvadori) Bangs, Proc. Biol. Soc. Wash., 12,
p. 131, 1898—"Santa Marta"; Allen, Bull. Amer. Mus. N. H., 13, p. 124,
1900—Bonda.

Crypturornis idoneus Todd and Carriker, Ann. Carnegie Mus., 14, p. 166,
1922—Bonda (crit.).

hair-brown with a drab tinge passing into the broad, black and ochraceous bars
which extend from the foreback to upper tail coverts and tail; wings fuscous;
inner coverts and tertials barred like the back; throat snowy white, changing
quickly into the light neutral gray of the front and sides of the neck and sides
of the breast; the center of the breast narrowly white broadening posteriorly into the
white abdomen; flanks barred with cream and black; lower tail coverts ochraceous-
buff with some basal black markings; tibiae grayish; feet brownish black; maxilla
blackish, mandible yellowish horn with black tip. Wing (two females), 135–140;
tarsus, 46; bill, 25." (Chapman, l.c.)

This species, which on casual examination appeared to be distinct from any-
thing known to the senior author, is evidently related to *C. strigulosus*, but dif-
fers by smaller size, darker gray foreneck and chest, and especially by having the
entire back up to the border of the hind neck barred with black and ochraceous.
In the female of *C. strigulosus*, these markings are confined to rump and tail
coverts, while the median and anterior portion of the back is uniform dark rufous
brown. It would be interesting to become acquainted with the yet unknown
male, which might be expected to have less barred upper parts, as is the case in
the corresponding sex of the allied *C. strigulosus*.

Material examined.—Venezuela: junction Rios Cassiquiare and Guainia, 2
(including the type).

¹ *Crypturellus idoneus* (Todd): Nearest to *C. cinnamomeus praepes*, but much
paler below, the breast being cinnamon-buff to wood brown (instead of ochraceous-
tawny) paling abdominally into light buff; female, furthermore, distinguished by
grayish foreneck (instead of ochraceous buff with broad black bars), unbarred
hind neck and nape, and by having but a few bands along sides of breast and
abdomen. Wing, 170–173; bill, 27–29.

Allowing the usual amount of individual variation, the three specimens from
the Rio Cogollo, sex for sex, agree well with three topotypes. From Venezuelan
examples of *C. n. erythropus* (so-called *spencei*), *C. idoneus* differs by much paler
under parts (breast cinnamon-buff to wood brown instead of ochraceous tawny,
passing into a much paler buff on the belly), while the females, in addition, may
be distinguished by more extensive grayish jugular zone and less rufescent back
with the light markings less ochraceous.

While it is quite possible that further researches may show *C. idoneus* and *C.
cinnamomeus* to be conspecific with *C. n. erythropus*, we prefer to keep them for
the present as separate species. *C. noctivagus* is said to have pale blue, glossless
eggs, while those of *C. cinnamomeus* and *C. idoneus* are glossy vinous brown or
cinnamon brown. Those of *C. erythropus* appear to be unknown.

Additional material examined.—Colombia: Bonda, 2 (including the type).

Crypturornis noctivagus spencei (not *Crypturus cinnamomeus spencei* Brabourne and Chubb) Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 26, 1922—Rio Cogollo, Sierra de Perijá, Venezuela.

Crypturellus cinnamomeus idoneus Peters, Bds. World, 1, p. 21, 1931 (range); Darlington, Bull. Mus. Comp. Zool., 71, p. 369, 1931—Rio Frio, Magdalena, Colombia.

Range.—Tropical zone of northern Colombia (Rio Frio, Magdalena; Bonda, Santa Marta region) and the adjoining parts of Venezuela (Rio Cogollo, Sierra de Perijá, State of Zulia).

Conover Collection.—4: Venezuela (Rio Cogollo, 3); Colombia (Bonda, Santa Marta, 1).

****Crypturellus cinnamomeus occidentalis* (Salvadori).¹ NAYARIT TINAMOU.**

Crypturus occidentalis Salvadori, Cat. Bds. Brit. Mus., 27, p. 546, 1895—San Blas, Tepic, Mexico (type in British Museum examined); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 458, 1904—San Blas and Mazatlan; Miller, Bull. Amer. Mus. N. H., 21, p. 340, 1905—Escuinapa, Los Pieses, and Lavanillo, Sinaloa.

Nothocercus sallaei (not of Bonaparte) Lawrence, Mem. Bost. Soc. N. H., 2, p. 307, 1874—Mazatlan, Sinaloa.

Crypturellus cinnamomeus occidentalis Peters, Bds. World, 1, p. 21, 1931—Nayarit; Conover, Proc. Biol. Soc. Wash., 46, p. 114, 1933 (crit.); Griscom, Ibis, 1935, p. 542 (crit.).

Range.—Pacific coast of western Mexico, from southern Sinaloa (Mazatlan, Cacalotan, Escuinapa, Los Pieses, Lavanillo) and Nayarit (San Blas, Rio Las Cañas) to Guerrero (Acapulco, Papayo).

Conover Collection.—10: Mexico (Cacalotan, Sinaloa, 6; Rio Las Cañas, Nayarit, 4).

****Crypturellus cinnamomeus mexicanus* (Salvadori).² MEXICAN TINAMOU.**

¹ *Crypturellus cinnamomeus occidentalis* (Salvadori) differs from *C. c. mexicanus* by having the foreneck and breast much paler gray (between mouse gray and light mouse gray), slightly tinged with buffy on the edges, only the abdomen warm buff and the flanks narrowly barred with blackish, while the upper parts of the males are much less banded, there being but a few narrow black bars, widely apart, on rump and tail coverts. Females are barred with blackish and buff almost to the mantle.

Additional material examined.—Tepic: San Blas, 1 (the type); Acaponeta, 2.—Guerrero: Papayo, 6; Acapulco, 2.

² *Crypturellus cinnamomeus mexicanus* (Salvadori): Nearest to *C. c. sallaei* but much paler, more olivaceous above, and breast paler, between cinnamon-buff and ochraceous-buff. The female seems to lack the dusky barring on foreneck and sides of breast. The Atlixco bird agrees perfectly with the series from Tamaulipas.

Additional material examined.—Tamaulipas: Tampico, 4; Monte Verde, 1 (the lectotype); Sierra Madre, above Ciudad Victoria, 2; unspecified, 1.—San Luis Potosi: Valle, 2.—Puebla: Hacienda de los Atlixcos, 1.

Crypturus mexicanus Salvadori, Cat. Bds. Brit. Mus., 27, p. 545, 1895—Tampico, Sierra Madre (above Ciudad Victoria), Hacienda de los Atlixcos, and Monte Verde, Tamaulipas, Mexico (lectotype, from Monte Verde, in British Museum examined); Richmond, Proc. U. S. Nat. Mus., 18, p. 627, 1896—Alta Mira, near Tampico, Tamaulipas; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 457, pl. 79, fig. 1 (male), fig. 2 (female), 1904—same localities; Phillips, Auk, 28, p. 74, 1911—Rio Cruz and Santa Leonor, Tamaulipas.

Crypturellus cinnamomeus mexicanus Peters, Bds. World, 1, p. 21, 1931—southern Tamaulipas; Conover, Proc. Biol. Soc. Wash., 46, p. 114, 1933 (crit.); Griscom, Ibis, 1935, p. 542—Tamaulipas (crit.); Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 401, p. 2, 1939—San Luis Potosi, Tamaulipas, northern Vera Cruz (crit.).

Range.—Tropical zone of eastern Mexico from the southern parts of Tamaulipas and San Luis Potosí (Valle), to northwestern Puebla (Atlixcos), and northern Vera Cruz.

Conover Collection.—4: Mexico (Santa Leonor, Tamaulipas, 1; Rio Cruz, Tamaulipas, 1; El Bonito, San Luis Potosi, 2).

***Crypturellus cinnamomeus sallaei* (Bonaparte).¹ SALLÉ'S TINAMOU.**

Nothocernus [sic] *sallaei* Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 954, May, 1856—Córdoba, Vera Cruz, Mexico (type in Vienna Museum examined; cf. Pelzeln, Orn. Bras., 3, p. 293, note 1, 1870).

Nothocercus sallaei Sclater, Proc. Zool. Soc. Lond., 24, p. 310, 1856—Córdoba.

Tinamus sallaei Sclater, Proc. Zool. Soc. Lond., 27, pp. 369, 392, 1859—vicinity of Jalapa, Vera Cruz, and Playa Vicente, Oaxaca (descr. of male and female); Sumichrast, La Naturaleza, 5, p. 229, 1881—part, Vera Cruz (Potrero, Omealca).

Crypturus sallaei Sclater and Salvin, Exot. Orn., p. 89, pl. 45, 1868—part, Mexico (Córdoba, Jalapa, Playa Vicente); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 180, 1886—Jalapa, Vera Cruz.

Crypturus cinnamomeus Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. a-h, Mexico (Vera Cruz, Córdoba, Atoyac, Plan del Rio Jalapa, Coatepec); Chapman, Bull. Amer. Mus. N. H., 10, p. 36, 1898—Jalapa, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 455, 1904

¹ *Crypturellus cinnamomeus sallaei* (Bonaparte): Very close to the nominate race, but somewhat larger and less heavily barred on the flanks; females with dusky markings on foreneck and chest reduced to vermiculations.

The type in the Vienna Museum received through Verreaux agrees with other specimens from the Vera Cruz region. It corresponds minutely to Bonaparte's description, and Hellmayr has no doubt whatever that it is the bird the Prince had before him when naming *N. sallaei*. It is a female marked "Córdoba, Mexico." The British Museum example (spec. a) does not seem to have any substantial claim to be called "the type." Griscom has shown *inornatus* to be a pure synonym of *sallaei*.

Material examined.—Mexico: Metlatoyuca, Puebla, 1; Córdoba, 2; Vera Cruz, 2; Atoyac, Vera Cruz, 1; Orizaba, 3; Jalapa, 2; Buenavista, 1; Pasa Nueva, 1; Mirador, Vera Cruz, 1; Presidio, Vera Cruz, 1.

— part, Vera Cruz (Córdoba, Playa Vicente, Atoyác, Jalapa, Plan del Rio, Coatepec, Potrero, Omealca).

Crypturus inornatus Nelson, Auk, 17, p. 253, 1900—Metlatoyuca, Puebla (type in U. S. National Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 458, 1904 (ex Nelson).

Crypturornis cinnamomeus cinnamomeus Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 471, 1927—Presidio, Vera Cruz.

Crypturellus cinnamomeus inornatus Peters, Bds. World, 1, p. 21, 1931 (range); Conover, Proc. Biol. Soc. Wash., 46, p. 114, 1933—Puebla (Metlatoyuca) and Vera Cruz (Orizaba, Jalapa, Buenavista, Pasa Nueva, Mirador) (crit.); Brodtkorb, Occ. Papers, Mus. Zool. Univ. Mich., 401, p. 3, 1939—Metlatoyuca, Puebla (crit.).

Crypturellus cinnamomeus cinnamomeus Peters, Bds. World, 1, p. 21, 1931—part, southern Vera Cruz.

Crypturellus cinnamomeus sallaei Conover, Proc. Biol. Soc. Wash., 46, p. 114, 1933—Omealca, Vera Cruz (crit.); Griscom, Ibis, 1935, p. 542—Vera Cruz and Puebla (crit.); Brodtkorb, Occ. Papers, Mus. Zool. Univ. Mich., 401, p. 3, 1939—southern Vera Cruz and northern Oaxaca (crit.).

Range. Southeastern Mexico, in states of Vera Cruz, Puebla, and Oaxaca, on the Atlantic slope.

****Crypturellus cinnamomeus goldmani* (Nelson).¹ GOLDMAN'S TINAMOU.**

Crypturus sallaei goldmani Nelson, Proc. Biol. Soc. Wash., 14, p. 169, 1901—Chichen Itzá, Yucatan (type in U. S. National Museum); Cole, Bull. Mus. Comp. Zool., 50, p. 115, 1906—Chichen Itzá, Yucatan (food).

Crypturus sallaei (not *Nothocernus sallaei* Bonaparte) Salvin, Ibis, 1874, p. 328—Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, pp. 434, 462—Yucatan.

Crypturus cinnamomeus (not *Tinamus cinnamomea* Lesson) Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. i-p, Yucatan (Izamal, Peto, Buctzotz).

Crypturus goldmani Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 456, 1904—Yucatan (Izamal, Peto, Buctzotz, Chichen Itzá).

Crypturellus cinnamomeus goldmani Peters, Bds. World, 1, p. 21, 1931—Yucatan Peninsula; Conover, Proc. Biol. Soc. Wash., 46, p. 115, 1933—Yucatan (Chichen Itzá, Temax) and Guatemala (Uaxactun, Petén) (crit.); Griscom, Ibis, 1935, p. 542—Yucatan and Petén (crit.); Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 10, 1935—Uaxactun and Chuntuquí, Petén, Guatemala.

¹ *Crypturellus cinnamomeus goldmani* (Nelson): Nearest to the nominate race, but very much paler throughout, especially above and on the chest. The females are well distinguished from those of the allied races by the sharp contrast between the dark reddish pectoral area and the very light (buffy white) posterior under parts. Two females from Petén (Uaxactun) agree with others from Yucatan. A single male from British Honduras is stated by Griscom to be intermediate between *goldmani* and *vicinior*.

Additional material examined.—Yucatan, 17; Petén, 2.

Range.—Yucatan Peninsula and Petén District, Guatemala.¹

Field Museum Collection.—2: Yucatan (Tilam, 1; unspecified, 1).

Conover Collection.—3: Yucatan (Temax, 2; unspecified, 1).

****Crypturellus cinnamomeus soconuscensis* Brodkorb.² CHIAPAN TINAMOU.**

Crypturellus cinnamomeus soconuscensis Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 401, p. 1, 1939—Colonia Soconusco, Chiapas, Mexico, alt. 30 meters (type in Museum of Zoology, University of Michigan, Ann Arbor).

Tinamus sallaiei (not *Nothocernus sallaiei* Bonaparte) Sumichrast, La Naturaleza, 5, p. 229, 1881—part, Oaxaca (Santa Efigenia, Tapanatepec, Cacoprieto) and Chiapas (Tonalá).

Nothocercus sallaiei Lawrence, Bull. U. S. Nat. Mus., 4, p. 45, 1876—Santa Efigenia (Tehuantepec), Oaxaca.

Crypturus cinnamomeus Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 455, 1904—part, Oaxaca (Santa Efigenia, Tapanatepec, Cacoprieto) and Chiapas (Tonalá).

Crypturellus cinnamomeus cinnamomeus Peters, Bds. World, 1, p. 21, 1931 (range in part); Conover, Proc. Biol. Soc. Wash., 46, p. 113, 1933—part, Santa Efigenia, Tehuantepec (crit.); Griscom, Ibis, 1935, p. 542—part, Chiapas and Tehuantepec, Mexico (crit.).

Range.—Pacific slope of southwestern Mexico, in the states of Oaxaca (Santa Efigenia, Tapanatepec, Cacoprieto) and Chiapas (Tonalá, Colonia Soconusco, Escuintla, Acacoyagua, Esperanza).³

Conover Collection.—11: Mexico, Chiapas, Escuintla (La Grada, 5; Esperanza, 3; Acacoyagua, 1; Salto de Agua, 2).

****Crypturellus cinnamomeus cinnamomeus* (Lesson). CINNAMOMEUS TINAMOU.**

Tinamus (Nothura) cinnamomea Lesson, Rev. Zool., 5, p. 210, 1842—La Unión, "Centre Amérique"—El Salvador (type now in Paris Museum).

Tinamus cinnamomeus Sclater and Salvin, Ibis, 1859, p. 226—La Unión, El Salvador (ex Lesson).

Tinamus sallaiei (not *Nothocernus sallaiei* Bonaparte) Taylor, Ibis, 1860, p. 312—near Aremecina, near Salvador boundary, Pacific Honduras; Salvin,

¹ Traylor (Field Mus. Nat. Hist., Zool. Ser., 24, p. 199, 1941) has recently described *Crypturellus cinnamomeus intermedius* from Pacaitun, Campeche, Mexico (type in Field Museum of Natural History). It is said to resemble *soconuscensis* above and *goldmani* below.

² *Crypturellus cinnamomeus soconuscensis* Brodkorb: Very similar to typical *cinnamomeus* but averaging darker throughout. This character is especially noticeable on the foreneck and chest. Sides of head and sides of neck darker reddish. The female has the chest barred.

One additional specimen from Acacoyagua examined.

³ Brodkorb includes the Pacific slope of Guatemala in the range, but this was based on a single specimen from Naranjo.

Ibis, 1866, p. 206—Pacific side of Cordillera, Guatemala; Lantz, Trans. Kans. Acad. Sci., 16, p. 218, 1899—Naránjo, Guatemala.

Crypturus sallaei Sclater and Salvin, Exot. Orn., p. 89, 1868—part, below Alotenango (south slope of the volcanoes of Agua and Fuego), Guatemala, and [Aremecina] western Honduras.

Crypturus cinnamomeus Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. q–y, Guatemala (Barránco Hondo, above San Diego; Medio Monte; El Zapote, Costa Grande) and El Salvador (La Libertad; Volcan de San Miguel); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 455, 1904—part, Guatemala (Barránco Hondo, Medio Monte, Volcan de Agua, Zapote),¹ and Salvador (La Unión, La Libertad, Volcan de San Miguel).

Crypturus cinnamomeus cinnamomeus Griscom, Bull. Amer. Mus. N. H., 64, p. 98, 1932—western Guatemala (ex Salvin and Godman).

Crypturellus cinnamomeus cinnamomeus Peters, Bds. World, 1, p. 21, 1931 (range in part); Conover, Proc. Biol. Soc. Wash., 46, p. 113, 1933—part, El Salvador (crit.); Griscom, Ibis, 1935, p. 542—Salvador, Pacific Guatemala (crit.); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 58, 1938—Volcan de Conchagua, Lake Olomega, Colinas de Jucuaran, Rio San Miguel, and Colima, El Salvador.

Crypturellus cinnamomeus goldmani (not *Crypturus sallaei goldmani* Nelson) Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 62, 1938—Divisadero, Volcan de San Miguel, Mount Cacaguatique, Barra de Santiago, and Chilata, El Salvador.

Range.—Pacific slope of Central America, from the Gulf of Fonseca on the Honduran border (Aremecina, Sabana Grande, Dept. Tegucigalpa) through El Salvador and Guatemala.²

Field Museum Collection.—5: El Salvador (Laguna Olomega, 3; Mount Cacaguatique, 1; Volcan San Miguel, 1).

Conover Collection.—3: El Salvador (Rio San Miguel, Dept. San Miguel, 1; Volcan Conchagua, Dept. La Unión, 1); Honduras (Sabana Grande, Dept. Tegucigalpa, 1).

****Crypturellus cinnamomeus* *vicinior* Conover.³ HONDURAN TINAMOU.**

*Crypturellus cinnamomeus vicina*r Conover, Proc. Biol. Soc. Wash., 46, p. 115, June 30, 1933—La Flor, Dept. Tegucigalpa, Honduras (type in

¹ Chisee is, no doubt, inadvertently listed, for Salvin (Ibis, 1866, p. 206) had shown the bird from that locality to be *C. b. boucardi*.

² Ten specimens from El Salvador (depts. of La Unión and Cuscatan) examined by the junior author.

³ *Crypturellus cinnamomeus vicina*r Conover: Very close to the nominate race, but upper parts lighter, more brownish, less reddish, this being particularly noticeable on the nape, hind neck, and mantle; the light barring on tail, rump, and upper tail coverts broader and whiter; chest, upper breast, and sides paler, more ochraceous, and the lower foreneck lighter gray. Size somewhat larger (average of wing in males, 167; in females, 171). From *C. c. delatitrii* it may be separated by lighter, less reddish under parts and heavier, whiter barring of the

Conover Collection, Field Museum of Natural History); Griscom, Ibis, 1935, p. 543—Honduras (crit.); Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 401, p. 3, 1939 (crit.).

Crypturus cinnamomeus (not *Tinamus cinnamomea* Lesson) Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. z, Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 455, 1904—part, Honduras (Dyson).

Range.—Highlands of Honduras, and probably those of Guatemala and adjacent Chiapas.

Conover Collection.—10: Honduras (Hatillo, 5; La Flor, 3; Monte Redondo, 1; Cerro Cantoral, 1).

****Crypturellus cinnamomeus delatirii* (Bonaparte).¹ NICARAGUAN TINAMOU.**

Tinamus delatirii Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 663, April, 1854—Nicaragua (type in Paris Museum).

Crypturus cinnamomeus (not *Tinamus cinnamomea* Lesson) Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. a'-g', Nicaragua (León, Chinandega, El Volcan); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 455, 1904—part, Nicaragua (same localities); Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—Island Zapatera, Lake Nicaragua, Nicaragua.

Crypturellus cinnamomeus cinnamomeus Peters, Bds. World, 1, p. 21, 1931—part, Nicaragua.

Crypturellus cinnamomeus dellatirii [sic] Conover, Proc. Biol. Soc. Wash., 46, p. 116, 1933—western Nicaragua (crit.); Griscom, Ibis, 1935, p. 543 (crit.).

Range.—Pacific lowlands (up to 1,500 feet) of Nicaragua.

Field Museum Collection.—4: Nicaragua (San Gerónimo, Chinandega, 4).

Conover Collection.—2: Nicaragua (León, Dept. León, 1; Volcan Chinandega, Dept. Chinandega, 1).

****Crypturellus cinnamomeus praepes* (Bangs and Peters).² BOLSON TINAMOU.**

upper wing coverts; from *C. c. praepes* by more grayish dorsal surface, with more pronounced as well as more whitish barring on the wing coverts, and paler under parts with mere traces of dusky bars on foreneck and chest in the female sex.

The junior author found two examples from Chiapas (Canjob) identical with the Honduran series.

¹ *Crypturellus cinnamomeus delatirii* (Bonaparte): Nearest to *C. c. cinnamomeus*, but decidedly larger (average of wing in males, 169; in females, 166); males much lighter, more brownish above and less reddish on breast; females without any, or with very indistinct, barring on foreneck and chest, whereas these parts are very conspicuously barred in the nominate race.

Additional material examined.—Western Nicaragua, 24.

² *Crypturellus cinnamomeus praepes* (Bangs and Peters): About the same size as *C. c. delatirii* and very similarly colored in the male sex, but females much more heavily barred with blackish on foreneck and chest.

Two additional specimens from Bebedéro examined by the senior author.

Crypturornis cinnamomeus praepes Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 472, Jan., 1927—Bolson, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.).

Crypturus sallaei (not *Nothocernus sallaei* Bonaparte) Sclater and Salvin, Exot. Orn., p. 89, 1868—part, Bebedéro, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 141, 1868—"San José," Costa Rica; Frantzius, Journ. Orn., 17, p. 374, 1869—"Esparza" [=Esparta], Pacific coast of Costa Rica; Nutting, Proc. U. S. Nat. Mus., 5, p. 409, 1882—La Palma de Nicoya, Costa Rica.

Crypturus cinnamomeus (not *Tinamus cinnamomea* Lesson) Salvadori, Cat. Bds. Brit. Mus., 27, p. 541, 1895—part, spec. h', i', Bebedéro, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 455, 1904—part, Costa Rica (Bebedéro, "San José," Esparta, La Palma); Carriker, Ann. Carnegie Mus., 6, p. 381, 1910—Bolson and Bebedéro, Costa Rica.

Crypturellus cinnamomeus praepes Peters, Bds. World, 1, p. 21, 1931 (range); Conover, Proc. Biol. Soc. Wash., 46, p. 117, 1933—Costa Rica (crit.); Griscom, Ibis, 1935, p. 543 (crit.).

Range.—Tropical zone of northwestern Costa Rica south to the Gulf of Nicoya (La Palma, Esparta).¹

Field Museum Collection.—3: Costa Rica (Bebedéro, Alajuéla, 3).

Conover Collection.—9: Costa Rica (Las Cañas, 5; Bebedéro, 1; Ballina, 1; Humo, 1; Paquera, 1).

****Crypturellus transfasciatus* (Sclater and Salvin).² STEERE'S TINAMOU.**

Crypturus transfasciatus Sclater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 141, pl. 13—Santa Rosa, Ecuador (type in coll. of Museum of Zoology, University of Michigan, Ann Arbor); Berlepsch and Taczanowski, l.c., 1884, p. 312—Guayaquil, Ecuador; Salvadori, Cat. Bds. Brit. Mus., 27, p. 546, 1895—Balzar, Ecuador (descr. of female); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 51, 1900—Guayaquil, Ecuador; Chubb, Ibis, 1919, p. 9—Guayaquil; Chapman, Bull. Amer. Mus. N. H., 55, p. 150, 1926—Ecuador (Chone, Chongocito, Santa Rosa, Arenillas, Alamor) and Peru (Paletillas).

Crypturellus transfasciatus Peters, Bds. World, 1, p. 22, 1931 (range).

Range.—Tropical zone of western Ecuador (north to the Rio Chone) and northwestern Peru (Paletillas, Dept. Tumbes).

¹ The locality "San José" attributed by Lawrence to Frantzius is probably a pen-slip, since the latter naturalist expressly states that he only once met with the species at Esparta, near the Gulf of Nicoya.

² *Crypturellus transfasciatus* (Sclater and Salvin) seems to be allied to *C. cinnamomeus*, from the races of which the female differs by more rufescent brown upper parts, and grayish buffy white under surface without any rufescent tinge. The male is more grayish olivaceous above, the barring on rump and upper wing coverts much less distinct, and the under parts are grayish white on the chest and upper breast, buffy white on the abdomen.

Conover Collection.—8: Ecuador (Bajo Verde, Guayas, 3; Arenillas, El Oro, 5).

****Crypturellus boucardi boucardi* (Sclater). BOUCARD'S TINAMOU.**

Tinamus boucardi (Sallé MS.) Sclater, Proc. Zool. Soc. Lond., 27, p. 391, 1859—Playa Vicente and Teotalcingo, Oaxaca, Mexico (type, from Teotalcingo,¹ in British Museum examined); Salvin, Ibis, 1861, p. 356—Guatemala (teste Owen); idem, Ibis, 1865, p. 195 (not found on the Pacific coast of Guatemala); Gray, List Spec. Bds. Brit. Mus., 5, p. 100, 1867—Guatemala; Sumichrast, La Naturaleza, 5, p. 229, 1881—Uvero, Mexico.

Tinamus sallaei (not *Nothocernus sallaei* Bonaparte) Salvin, Ibis, 1861, p. 356—Chisec, Alta Vera Paz, Guatemala (cf. Salvin, Ibis, 1866, p. 206).

Crypturus boucardi Sclater and Salvin, Exot. Orn., p. 91, pl. 46, 1868—southern Mexico and Guatemala (Choctum); idem, Proc. Zool. Soc. Lond., 1870, p. 838—[San Pedro], Honduras; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 26, 1880—southern Mexico and Guatemala (Coban, Vera Paz); Salvadori, Cat. Bds. Brit. Mus., 27, p. 544, 1895—part, spec. a-k, Mexico (Teotalcingo, Chimalapa), British Honduras, and Guatemala (Choctum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 457, 1904—part, Mexico (Playa Vicente, Teotalcingo, Uvero, Chimalapa), British Honduras, Guatemala (Chisec, Choctum), and Honduras (San Pedro).

Crypturus boucardi boucardi Griscom, Bull. Amer. Mus. N. H., 64, p. 97, 1932—Secanquim, Guatemala; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 360, 1939—Santa Rosa, Chiapas.

Crypturellus boucardi boucardi Peters, Bds. World, 1, p. 19, 1931 (range); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 296, 1932—San Pedro, Honduras; Van Tyne, Misc. Pub., Mus. Zool. Univ. Mich., 27, p. 10, 1935—Uaxactun, Petén, Guatemala; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 360, 1939—Santa Rosa, Chiapas.

Cryptuornis boucardi boucardi Austin, Bull. Mus. Comp. Zool., 69, p. 369, 1929—Cayo district, British Honduras.

Crypturellus boucardi blancaneauxi Griscom, Ibis, (13), 5, p. 543, July, 1935—British Honduras (type in British Museum examined).

Range.—Southeastern Mexico, from extreme southern Vera Cruz south through Atlantic Guatemala and British Honduras to northwestern Honduras.²

¹ Boucard (Proc. Zool. Soc. Lond., 1878, p. 41) claims, however, that "the type was obtained at Playa Vicente, a small village up the river Papaloapam, the mouth of which is at Alvarado, on the Atlantic, between Vera Cruz and Minatitlan." This specimen is probably in the Paris Museum with Boucard's private collection.

² Two adults from western Honduras (La Cumbre and Chamelicon) do not appreciably differ from Guatemalan (Choctum) specimens. *C. b. blancaneauxi*, based on two unsexed birds with banded wing coverts, lower back, and rump, is not distinguishable by any character from Mexican and Guatemalan females. The type is a young bird with pointed primaries and the crown still covered with the dull reddish brown juvenile feathering (a number of the new slaty black-tipped feathers are just cropping out on the forehead), and the second example, while in more

Field Museum Collection.—1: Guatemala (unspecified, 1).

Conover Collection.—8: Mexico (Tutla, Oaxaca, 8).

****Crypturellus boucardi costaricensis* (Dwight and Griscom).¹**
COSTA RICA TINAMOU.

Crypturus boucardi costaricensis Dwight and Griscom, Amer. Mus. Nov., 142, p. 1, Nov. 3, 1924—Miravalles, Costa Rica (type in coll. of J. Dwight, Jr., now in the American Museum of Natural History, New York).

Crypturus boucardi (not *Tinamus boucardi* Sclater) Salvin, Ibis, 1870, p. 115—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 41—San Carlos, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Pacuare, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 27, p. 544, 1895—part, spec. 1, Costa Rica; Underwood, Ibis, 1896, p. 449—Miravalles, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 457, 1904—part, Nicaragua (Rio Escondido, Rio Coco) and Costa Rica (San Carlos, Pacuare, Miravalles); Carriker, Ann. Carnegie Mus., 6, p. 381, 1910—Costa Rica (Cerro de Santa Maria, Tenorio, Guanacaste).

Crypturus sp.(?) Richmond, Proc. U. S. Nat. Mus., 16, p. 526, 1893—Rio Escondido, Nicaragua.

Crypturellus boucardi costaricensis Peters, Bull. Mus. Comp. Zool., 69, p. 402, 1929—Lancetilla, Honduras (crit.); idem, Bds. World, 1, p. 19, 1931 (range).

Range.—Caribbean lowlands of Honduras and Nicaragua and both slopes of Costa Rica.

Conover Collection.—18: Honduras (Catacamas, Olancho, 14); Costa Rica (Miravalles, Guanacaste, 2; Quebrada Azul de San Carlos, Alajuela, 1; San Carlos, Alajuela, 1).

***Crypturellus columbianus* (Salvadori).²** COLOMBIAN TINAMOU.

advanced plumage, is not quite mature either. The type is slightly brighter, less chestnut on the back, but the other specimen does not differ at all from Mexican females. The alleged difference in the coloration of under parts is simply due to the make of the skins. The black banding on the flanks is by no means wider nor is the ochraceous of the belly any brighter than in certain females of *boucardi*.

Additional material examined.—Mexico: Teotalcingo, 1 (the type); Chimalapa, Oaxaca, 1; Santo Domingo, Oaxaca, 2; Teaba, Tabasco, 3; Catemaco, Vera Cruz, 1; unspecified, 3.—Guatemala: Choctum, 4; unspecified, 4.—Honduras: La Cumbre, 1; Chamelicon, 1.—British Honduras: unspecified, 2.

¹ *Crypturellus boucardi costaricensis* (Dwight and Griscom): Very similar to the nominate race, but slightly darker (more blackish, less chestnut) on middle and lower back and slightly lighter on the abdomen, while the females appear to be less barred on the flanks.

The other characters claimed by the describers fail to hold. This race is ill-defined, and we doubt if it can be made out from single specimens. A series from Honduras (Catacamas, Olancho, altitude 1,500–2,000 feet) and two adults from Rio Coco, Nicaragua, are identical with Costa Rican birds.

Additional material examined.—Nicaragua: Rio Coco, 2.—Costa Rica: Miravalles, 3; unspecified, 2.

² *Crypturellus columbianus* (Salvadori) is known from the unique type, marked as "male" by the collector, T. K. Salmon. Compared to females of *C. boucardi*,

Crypturus columbianus Salvadori, Cat. Bds. Brit. Mus., 27, p. 545, 1895—Neché, Antioquia, Colombia (type in British Museum examined).

Crypturus boucardi (not *Tinamus boucardi* Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 548—Neché, Colombia.

Crypturellus columbianus Peters, Bds. World, 1, p. 22, 1931 (range).

Range.—Northern Colombia (Neché, State of Antioquia).

***Crypturellus kerriae* (Chapman).¹ MRS. KERR'S TINAMOU.**

Crypturus kerriae Chapman, Bull. Amer. Mus. N. H., 34, p. 636, Dec. 30, 1915—Baudo, Chocó, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 193, 1917—Baudo.

Crypturellus kerriae Peters, Bds. World, 1, p. 20, 1931 (range).

Range.—Tropical zone of Pacific Colombia (Baudo, Chocó).

****Crypturellus parvirostris* (Wagler).² SMALL-BILLED TINAMOU.**

with which it partakes of the slaty black crown, it differs principally by dull rufescent (about orange-cinnamon) coloration of the lores, cheeks, and malar region, and dull rufous brown instead of sooty hind neck. On the upper parts, it otherwise closely agrees with certain Guatemalan females, notably in the dark rufous brown ground color with black barring on middle and lower back, though the ochraceous and black barring of the tail coverts is but faintly suggested by a few buffy transverse spots. The light and dark markings on the upper wing coverts are much less numerous and less regular than in females of *boucardi*, but more strongly developed than in males, which as a rule have only traces of such a pattern. The throat is pure white, abruptly defined as in *boucardi*; the under surface is very similar to a female from Guatemala (Brit. Mus. Reg. No. 61.7.16.50), being dingy gray washed all over with tawny olive or sayal brown, though the flanks are marked only with one or two black-and-buff bars. Wing, 170; bill, 26.

The bird, which gives the impression of being immature, belongs unquestionably in the *boucardi* group, and has no relation to *C. cinnamomeus*. More material is urgently needed.

¹ *Crypturellus kerriae* (Chapman): Most nearly related to *C. boucardi*, but smaller; upper parts more barred and anteriorly browner; throat grayer, neck and breast blackish rather than gray, rest of under parts deeper, the breast slightly, the flanks conspicuously barred. Wing (adult female), 149; tail, 44; tarsus, 53; bill, 29.

This species, which is known only from the type, may prove to be an intensely colored southern race of *C. boucardi*. Judging from the description, it appears to be quite different from *C. columbianus* (Salvadori), of which the type has also remained unique.

² *Crypturellus parvirostris* (Wagler), in addition to its smaller size, shorter (slenderer) bill, and less intense and lighter rufous upper parts, may be readily separated from *C. tataupa* by weaker, shorter tarsus and (in life) bright red (instead of chocolate brown to bluish violet) legs.

Birds from eastern and central Brazil and those from Paraguay agree well together, and so do the few available Bolivian examples. Specimens from Amazonia (Santarém and Humaytá) as well as a single male from Santa Ana, Urubamba, Peru, while not constantly differing in coloration, are generally smaller, and possibly with a larger series some subdivision might be feasible.

Miranda-Ribeiro (Rev. Mus. Paul., 23, pp. 775, 776, 1938) separates *C. p. superciliaris*, from the northern slope of the Serra dos Parecis, Matto Grosso, and *C. p. fuscus*, from the island of Marajó.

Additional material examined.—Brazil: Pão d'Alho, Pernambuco, 1; São Lourenço, Pernambuco, 1; Lamarão, Bahia, 1; Agua Suja, Minas Geraes, 1; Goyáz,

Crypturus parvirostris Wagler, Syst. Av., 1, fol. 19, genus *Crypturus*, sp. 13, 1827—Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 705, 1906); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 49—Lagõa Santa, Minas Geraes (crit.); Pelzeln, Orn. Bras., 3, p. 294, 1870—São Paulo (Ypanemá), Goyáz (Goyáz), and Matto Grosso (Caiçara, Pansecco, Engenho do Gama); Schlegel, Mus. Pays-Bas, 8, Tinami, p. 22, 1880—Engenho do Gama, Ypanemá, and Bahia, Brazil; Riker and Chapman, Auk, 8, p. 163, 1891—Santarém, Rio Tapajóz, Brazil; Allen, Bull. Amer. Mus. N. H., 5, pp. 151, 158, 1893—Chapada, Matto Grosso (egg descr.); Salvadori, Cat. Bds. Brit. Mus., 27, p. 526, 1895—Brazil (Bahia; Pansecco and Chapada, Matto Grosso); Ihering, Rev. Mus. Paul., 3, p. 460, 1899—Cachoeira, São Paulo; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 16, 1900—Urucúm, near Corumbá, Matto Grosso; Berlepsch and Stolzmann, Ornith., 13, p. 101, 1906—Santa Ana, Urubamba, Peru; Ihering, Cat. Faun. Braz., 1, p. 6, 1907—São Paulo (Cachoeira, Ypiranga, Rincão); Hellmayr, Nov. Zool., 14, p. 410, 1907—Humaytá, Rio Madeira; idem, l.c., 15, p. 99, 1908—Goyáz (Goyáz, Rio Araguaya), Bahia (Lamarão), and Pernambuco (São Lourenço); Hartert and Venturi, l.c., 16, p. 264, 1909—Mocoví, Santa Fé (eggs only obtained); Hellmayr, l.c., 17, p. 420, 1910—Humaytá, Rio Madeira; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 185, 1910—Mocoví (ex Venturi); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss., 76, p. 98, 1910—Pão d'Alho, near Recife, Pernambuco; Snethlage, Bol. Mus. Goeldi, 8, p. 49, 1914—Fazenda Teso São José, Marajó, Brazil; Bertoni, Faun. Parag., p. 35, 1914—Paraguay; (?) Arribáizaga, El Hornero, 2, p. 88, 1920—Chaco; Chapman, Bull. U. S. Nat. Mus., 117, p. 43, 1921—Santa Ana, Urubamba, Peru (crit.); Pinto, Rev. Mus. Paul., 17, (2), p. 709, 1932—Aquidauana, Matto Grosso.

Pezus niambu Spix, Av. Spec. Nov. Bras., 2, p. 63, 1825—"in campis districtus adamantini et Bahiae" (part, descr. of "female").

Crypturus tataupa (not *Tinamus tataupa* Temminck) Ménégau, Rev. Franç. d'Orn., 1917, p. 24—Caceres and Pocone, Matto Grosso (fide Berlioz, in litt.).

Crypturellus parvirostris Chubb, Ibis, 1919, p. 10—Rio Solocame (near Chulumani), Dept. La Paz, Bolivia; Dabbene, El Hornero, 1, p. 260, 1919—Santa Ana, Misiones; Peters, Bds. World, 1, p. 23, 1931 (range); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 365, 1934—Descalvados, Matto Grosso; Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 136, 1935—Santa Ana, Misiones; Pinto, Rev. Mus. Paul., 19, p. 55, 1935—Rio Gongogy (Cajazeiras), Bahia; idem, l.c., 20, p. 29, 1936—Rio das Almas, Jaraguá, and Inhúmas, Goyáz.

Microcrypturus parvirostris Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 478, 1929—Maranhão (Fazenda Inhúma), Piauí (Arára), and Ceará (Juá, near Iguatú); Naumburg, Bull. Amer. Mus. N. H., 60, p. 58, 1930—Matto Grosso.

5; Caissara, Matto Grosso, 1; Ypanemá, São Paulo, 3; Victoria, São Paulo, 3; Santarém, Rio Tapajóz, 2; Humaytá, Rio Madeira, 6.—Paraguay: Nueva Germania, 2; Independencia, 1.—Peru: Santa Ana, Urubamba, 1.

Range.—Brazil from the island of Marajó and the south bank of the Amazon south to Matto Grosso and São Paulo, west to the Rio Madeira (Humaytá); southeastern Peru (Santa Ana, Urubamba Valley); eastern Bolivia; Paraguay; northern Argentina (Santa Ana, Misiones; (?)Mocoví, Santa Fé).¹

Field Museum Collection.—5: Brazil (Alto Parnahyba, Maranhão, 1; Piraputanga, Matto Grosso, 1; Fazenda Capão Bonita, Vaccaria, Matto Grosso, 2; Araçatuba, São Paulo, 1).

Conover Collection.—32: Brazil (Alto Parnahyba, Maranhão, 1; Santarém, Pará, 2; Arára, Piahy, 1; Fazenda Capão Bonita, Vaccaria, Matto Grosso, 4; Victoria, São Paulo, 2); Paraguay (Villa Rica, 9; Horqueta, 6; 265 km. west of Puerto Casado, 1; 235 km. west on the Riacho Negro, Chaco, 1); Bolivia (Buenavista, Santa Cruz, 3; Rio Surutú, Province of Sara, 1; San Carlos, Santa Cruz, 1).

****Crypturellus tataupa lepidotus* (Swainson).² NORTHERN
TATAUPA TINAMOU.**

(?)*Pezus niambu* Spix, Av. Spec. Nov. Bras., 2, p. 63, pl. 78a, 1825—"in campis districtus adamantini et Bahiae" (part, descr. of male; type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 705, 1906).³

Crypturus lepidotus Swainson, Nat. Hist. Classif. Bds., 2, p. 345, July 1, 1837
—based on *Tinamus tataupa* var. Swainson, Zool. Illust., 1, pl. 19, 1821;

¹ No specimens from the Argentine Chaco appear to exist in collections, and the record rests upon the identification of two eggs taken by the late Santiago Venturi.

² *Crypturellus tataupa lepidotus* (Swainson): Similar to the nominate race, but bill slightly shorter; upper part of the head lighter, slate gray rather than blackish; back, rump, and upper wing coverts decidedly duller and less rufescent, natal brown rather than auburn to chestnut; gray color on sides of head and under surface lighter in tone.

Although single individuals are not always distinguishable, the characters of this pale northern race are quite noticeable in a series. There can be no doubt that *lepidotus* of Swainson is an earlier name. It was based on a bird obtained by Swainson himself "in the interior of Bahia" (possibly at "Orope" [=Orobé], a village he mentions at various places in his writings), known to be tenanted by *C. t. septentrionalis*, of which Mrs. Naumburg records specimens from "Iracem" [=Iracema] and from "Fequié" [=Jequié], near the Rio das Contas, in the southern part of the state.

Additional material examined.—Piahy: Corrente, 7; Buriti, near Parnaguá, 3.—Bahia: Santa Rita, Rio Preto, 1; unspecified, 2.

³ There is the possibility of *P. niambu* being a still earlier name for *C. t. lepidotus*. Unfortunately, the type is lost and the localities mentioned by Spix, viz., Diamantina (Minas Geraes) and Bahia, are not conclusive either, as they might just as well refer to *C. parvirostris*, which Spix erroneously took for the female of his *P. niambu*. While no material is at hand from Diamantina, the inhabitants of that region are more likely to pertain to *tataupa*, its fauna being essentially the same as that of Espírito Santo and Rio de Janeiro. Under these circumstances we are inclined to give preference to Swainson's term as one of unquestionable applicability.

interior of Bahia, Brazil (type in coll. of W. Swainson, now in University Museum, Cambridge, Engl.).

Tinamus tataupa (not of Temminck) Wied, Beitr. Naturg. Bras., 4, (2), p. 515, 1833—sertão of Bahia.

Crypturus tataupa Forbes, Ibis, 1881, p. 359—Macuca and Garanhuns, Pernambuco; Salvadori, Cat. Bds. Brit. Mus., 27, p. 525, 1895—part, northern Brazil; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 98, 1910—Buriti, near Parnaguá, Piauh; idem, l.c., p. 244, 1924 Piauh (habits); Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará.

Microcrypturus tataupa tataupa Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 477, 1929—Piauh (Ibiapaba) and Ceará (Varzea Formosa; Juá, near Iguatú).

Crypturellus tataupa septentrionalis Naumburg, Amer. Mus. Nov., 554, p. 6, Aug. 22, 1932—Corrente, Rio Parnahyba, Piauh, Brazil (type in the American Museum of Natural History, New York).

Crypturellus tataupa tataupa Peters, Bds. World, 1, p. 23, 1931—part, Piauh, Ceará, and Pernambuco.

Range.—Northeastern Brazil, from Maranhão, Piauh, and Ceará south to Pernambuco and Bahia.

Field Museum Collection.—4: Brazil (Juá, near Iguatú, Ceará, 2; Macaco Secco, near Andarahy, Bahia, 1; São Marcello, Rio Preto, Bahia, 1).

Conover Collection. 2: Brazil (Ibiapaba, Piauh, 1; Varzea Formosa, Ceará, 1).

****Crypturellus tataupa tataupa* (Temminck). TATAUPA
TINAMOU.**

Tinamus tataupa Temminck, Hist. Nat. Pig. Gall., 3, pp. 590, 752, 1815—based on specimens from Brazil in the collections at Lisbon and Paris, as well as on “Ynambú tataupa” Azara, No. 329, Paraguay; idem, Nouv. Rec. Pl. Col., livr. 70, pl. 415, 1826—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 49—Minas Geraes; Pelzeln, Orn. Bras., 3, p. 294, 1870—Rio de Janeiro (Rio, Sapitiba), São Paulo (Mattodentro, Ypanemá), and Matto Grosso (Engenho do Gama).

Tinamus plumbeus Lesson, Traité d’Orn., livr. 7, p. 513, April, 1831—new name for *Tinamus tataupa* Temminck.

Crypturus tataupa Lichtenstein, Verz. Doubl. Berliner Mus., p. 68, 1823—São Paulo; Wagler, Syst. Av., 1, fol. 19, genus *Crypturus*, sp. 12, 1827—Brazil and Paraguay; Burmeister, Journ. Orn., 1, p. 176, 1853—Brazil (egg descr.); idem, Syst. Uebers. Th. Bras., 3, p. 314, 1856—Rio de Janeiro (Nova Friburgo) and Minas Geraes (Lagõa Santa); Euler, Journ. Orn., 15, p. 417, 1867—Cantagallo, Rio de Janeiro (breeding habits); Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo; Salvin, Ibis, 1880, p. 364—Salta; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 21, 1880—Rio Grande, Brazil, and “Cayenne” (errore); White, Proc. Zool. Soc. Lond., 1882, p.

- 629—Campo Colorado, Orán, Salta; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 184, 1885—Rio Grande do Sul; Berlepsch, Journ. Orn., 35, p. 37, 1887—Rio Pilcomayo, Paraguay; Sclater and Hudson, Arg. Orn., 2, p. 208, 1889—Orán and Salta; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 403, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 123, 1891—Córdoba; Allen, Bull. Amer. Mus. N. H., 5, pp. 151, 158, 1893—Chapada, Matto Grosso (eggs descr.); Salvadori, Cat. Bds. Brit. Mus., 27, p. 525, 1895—Paraguay, Salta, and Brazil (Rio de Janeiro, Chapada); idem, Boll. Mus. Zool. Torino, 10, No. 208, p. 24, 1895—Colonia Risso, Paraguay; idem, l.c., 12, No. 292, p. 36, 1897—Caiza, Bolivia, and Tala, Salta; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 153, 1899—Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 459, 1899—São Paulo; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 16, 1900—Urucúm, near Corumbá, Matto Grosso; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 218, 1902—Tafi Viejo and La Ramada, Tucumán; Baer, Orn., 12, p. 233, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Tafi Viejo and La Ramada, Tucumán; Ihering, Cat. Faun. Braz., 1, p. 6, 1907—São Paulo (Baurú) and Espirito Santo; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 185, 1910 (range in Argentina); Chubb, Ibis, 1910, p. 55—Sapucay, Paraguay; Grant, Ibis, 1911, p. 477—Riacho Ancho, Terr. Chaco; Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 285, 1912—Paso Yuvay, Paraguay; idem, Bol. Soc. Physis, 1, p. 250, 1913—Misiones, Paraguay, and Santiago del Estero (crit., var.); Bertoni, Anal. Soc. Cient. Arg., 75, p. 67, 1913—Misiones; idem, Faun. Parag., p. 35, 1914—Alto Paraná, Paraguay; Ménégau, Rev. Franç. d'Orn., 1925, p. 222—Icaño, Santiago del Estero; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 253, 1923—Monte Serrat, Serra do Itatiaya, Brazil; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 114, 1926—Salto Guayra, Paraná; Pereyra, El Hornero, 4, p. 28, 1927—Córdoba.
- Crypturus cervinus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 954, 1856—Chiquitos, Bolivia (type in Paris Museum).
- Crypturus cinereus* (not *Tetrao cinereus* Gmelin) White, Proc. Zool. Soc. Lond., 1882, p. 629—Orán, Salta.
- Crypturus kerberli* Büttikofer, Not. Leyden Mus., 18, p. 1, July 15, 1896—Argentina (type, aviary bird, in the Leiden Museum); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 36, 1897—San Lorenzo, Jujuy (crit.).
- Crypturus tataupa* subsp.(?) Hartert and Venturi, Nov. Zool., 16, p. 264, 1909—Tucumán (Santa Ana) and Salta (Metan) (crit.).
- Crypturus tataupa tataupa* Holt, Bull. Amer. Mus. N. H., 57, p. 278, 1928—below Ponte Maromba, Serra do Itatiaya.
- Crypturellus tataupa tataupa* Naumburg, Bull. Amer. Mus. N. H., 60, p. 58, 1930—Rio Negro, Paraguay, and Urucúm, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 81, 1930—Villa Montes, Tarija, Bolivia; Peters, Bds. World, 1, p. 23, 1931—part, southern Brazil, Bolivia, Paraguay, and Argentina; Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 137, 1935 (range in Argentina).
- Microcrypturus tataupa tataupa* Hudson, El Hornero, 4, p. 175, 1928 (habits); Dinelli, l.c., 4, p. 272, 1929—Tucumán (habits).

Range.—Southern Brazil, from Espirito Santo, Minas Geraes, and Matto Grosso south to Rio Grande do Sul; Paraguay; eastern Bolivia; northern Argentina, from Jujuy and Salta southward through Tucumán and Santiago del Estero to Córdoba and Santa Fé, also Misiones.¹

Field Museum Collection.—1: Argentina (Tucumán, 1).

Conover Collection.—35: Brazil (Victoria, São Paulo, 1); Bolivia (Buenavista, Santa Cruz, 2; San Isidro, Santa Cruz, 1; Samaipata, Santa Cruz, 2; Rio Surutú, Santa Cruz, 3; San Carlos, Santa Cruz, 2); Paraguay (Villa Rica, 4; Santa Barbara, 1; Molinasque, 1; Horqueta, 4; Capitan Bado, Cerro Amambay, 3; 265 km. west of Puerto Casado, 1); Argentina (Vipos, Tucumán, 1; Sierra de Santa Barbara, Jujuy, 1; Pózo Hondo, Santiago del Estero, 1; Concepción, Tucumán, 3; El Dorado, Misiones, 1; Santa Ana, Misiones, 3).

****Crypturellus tataupa peruviana* (Cory).² PERUVIAN TATAUPA TINAMOU.**

Crypturus tataupa peruviana Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 293, Feb. 23, 1915—San Ramón, Chanchamayo, Dept. Junín, Peru (type in Field Museum of Natural History).

Crypturus tataupa (not *Tinamus tataupa* Temminck) Tschudi, Arch. Naturg., 10, (1), p. 307, 1844—Peru; idem, Faun. Peru., Orn., p. 46, 1845—Peru; Taczanowski, Orn. Pér., 3, p. 297, 1886—Peru (ex Tschudi); Salvadori, Cat. Bds. Brit. Mus., 27, p. 525, 1895—part, Chanchamayo, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 46—La Merced, Chanchamayo, Peru (crit.).

Crypturellus tataupa peruviana Peters, Bds. World, 1, p. 23, 1931—Peru.

Range.—Tropical zone of central Peru (San Ramón and La Merced, Chanchamayo Valley, Dept. Junín).

Field Museum Collection. 1: Peru (San Ramón, 1).

Conover Collection.—1: Peru (San Ramón, 1).

¹ Birds from southern Brazil, including two from Espirito Santo and one from Lagoa Santa, Minas Geraes, are fairly uniform and agree with Paraguayan skins. Argentine and Bolivian specimens cannot satisfactorily be separated either, although some incline to slightly paler upper parts. Dabbene has already observed that there is no constant difference between birds from Misiones on one side and those from Santiago del Estero on the other. *C. kerberti* Büttikofer, based on an aviary bird in poor condition and said to lack the whitish color on throat and center of abdomen, was no doubt a cage variety. According to J. Berlioz (in litt.), *C. cervinus* is a synonym of *T. tataupa*.

Twenty-two additional specimens examined.

² *Crypturellus tataupa peruviana* (Cory): Exceedingly close to *C. tataupa*, but with slightly longer bill and somewhat darker rufous brown back. Wing, 127–131; tail, 45–47; bill, 23½–24½.

Additional specimens examined.—Peru: La Merced, 2.

Crypturellus tataupa inops Bangs and Noble.¹ MARAÑÓN
TATAUPA TINAMOU.

Crypturellus tataupa inops Bangs and Noble, Auk, 35, p. 445, Oct., 1918—Perico, northwestern Peru (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, Bds. World, 1, p. 23, 1931 (range).

Range.—Tropical zone of northern Peru (Perico and Bella Vista, Rio Marañón, Dept. Cajamarca).

Genus **RHYNCHOTUS** Spix

Rhynchotus Spix, Av. Spec. Nov. Bras., 2, p. 60, 1825—type, by monotypy, *Rhynchotus fasciatus* Spix=*Tinamus rufescens* Temminck.

Nothurus (not *Nothura* Wagler) Swainson, Nat. Hist. Classif. Bds., 2, p. 345, July 1, 1837—type, by subs. desig. (Salvadori, Cat. Bds. Brit. Mus., 27, p. 547, 1895), *Tinamus rufescens* Temminck.

Rhyncotus G. R. Gray, List Gen. Bds., p. 63, 1840—emendation of *Rhynchotus* Spix.

Rhynchotis Reichenbach, Syn. Av., Orn. Méth., Gallinaceae, No. 3, p. [1], Feb., 1848—emendation of *Rhynchotus* Spix.

Rhinchotus Ihering, Cat. Faun. Braz., 1, p. 8, 1907—emendation.

***Rhynchotus rufescens catinae** Reiser.² CATINGA TINAMOU.

Rhynchotus rufescens catinae Reiser, Anzeiger Akad. Wiss. Wien, 42, No. 18, p. 324, July, 1905—Palmeirinhas and Corrientes (Rio Parnahyba), Piahy, Brazil (type, from Palmeirinhas, in Vienna Museum examined); Hellmayr, Nov. Zool., 14, p. 411, 1907—Humaytá, Rio Madeira; idem, l.c., 17, p. 421, 1910—Humaytá; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 98, 1910—Palmeirinhas and Corrientes, Piahy; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 479, 1929—Maranhão (Codó, Cocos) and Piahy (crit.); Peters, Bds. World, 1, p. 23, 1931 (range).

Rhinchotus rufescens catinae Ihering, Cat. Faun. Braz., 1, p. 9, 1907—Piahy.

¹ *Crypturellus tataupa inops* Bangs and Noble: Differs, according to the describers, from *C. t. tataupa* by browner, less vinaceous upper parts and paler under surface, the middle of breast and belly being pale grayish white; from *C. t. peruviana* by smaller size, much less vinaceous upper, and much more whitish under parts. Wing (males), 117–119; bill, 21–22.

² *Rhynchotus rufescens catinae* Reiser: Very similar to *R. r. rufescens*, but ground color of upper parts more grayish brown with the light cross-bars less buffy, and posterior under parts more grayish, especially on flanks and tail coverts.

Two birds from the Rio Madeira (Humaytá), when compared to Reiser's original examples, are closely similar, but have the cross-barring above not quite so whitish, though still less buffy than in the nominate race. A female from Maranhão, however, is barely distinguishable from certain São Paulo and Paraguayan specimens.

Additional material examined.—Brazil: Humaytá, Rio Madeira, 2; Palmeirinhas, Piahy, 1 (the type); Corrientes, Piahy, 1.

Range.—Northern Brazil, from the Rio Madeira (Humaytá) east to the interior of Piauí (Palmeirinhas; Corrientes) and Maranhão (Codó, Cocos).

Conover Collection.—3: Brazil (Codó, Cocos, Maranhão, 3).

****Rhynchotus rufescens rufescens* (Temminck). RUFIOUS TINAMOU.**

Tinamus rufescens Temminck, Hist. Nat. Pig. Gall., 3, pp. 552, 747, 1815—Brazil and Paraguay (ex Azara, No. 326); São Paulo, accepted as type locality (type lost, formerly in Paris Museum);¹ idem, Nouv. Rec. Pl. Col., livr. 69, pl. 412, 1826—Paraguay and Brazil.

Cryptera [sic] *guazu* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 103, 1819—based on “Ynambú-guazú” Azara, No. 326, Paraguay.

Crypturus rufescens Lichtenstein, Verz. Doubl. Berliner Mus., p. 67, 1823—São Paulo.

Rhynchotus fasciatus Spix, Av. Spec. Nov. Bras., 2, p. 60, pl. 76c, 1825—São Paulo and Minas Geraes (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 698, 1906).

Rhynchotus rufescens Wagler, Syst. Av., 1, fol. 19 [p. 14], 1827 (descr.); Darwin, Zool. Voy. Beagle, 3, p. 120, 1841—part, Maldonado, Uruguay; Hartlaub, Syst. Ind. Azara, p. 21, 1847—Paraguay (ex Azara); Burmeister, Syst. Uebers. Th. Bras., 3, p. 327, 1856—Congonhas, Minas Geraes; idem, Journ. Orn., 8, p. 259, 1860—part, Banda Oriental; idem, Reise La Plata St., 2, p. 498, 1861—part, Banda Oriental; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 51—Minas Geraes; Pelzeln, Orn. Bras., 3, p. 294, 1870—São Paulo (Mattodentro, Tatutuba, São José, Ypanemá, Itararé); (?) Forbes, Ibis, 1881, p. 360—Garanhuns, Pernambuco; Dalglish, Proc. Roy. Phys. Soc. Edin., 6, p. 249, pl. 8, fig. 5 (egg), 1881—Est. de la Tala, Prov. Durazno, Uruguay; idem, l.c., 10, p. 88, 1889—Estancia Ytañi, east of Asunción, Paraguay; Allen, Bull. Amer. Mus. N. H., 5, pp. 151, 158, 1894—Chapada, Matto Grosso (egg descr.); Aplin, Ibis, 1894, p. 212—Uruguay (Santa Elena, Rio Perdido, Rio Negro); Salvadori, Cat. Bds. Brit. Mus., 27, p. 548, 1895—part, spec. e-h, q-t, Uruguay (near Paysandú, Maldonado, Montevideo) and Brazil (Itararé, Chapada, Bahia); Ihering, Rev. Mus. Paul., 3, p. 462, 1899—São Paulo; idem, Anuario Est. Rio Grande do Sul, 16, p. 153, 1899—Rio Grande do Sul (Pedras Brancas, Pelotas); Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 19, 1900—Tebicuarí, near Villa Rica, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 8, 1907—São Paulo (Ypiranga) and Matto Grosso (Porto da Faya); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 337, 1909—Campo Itatiaya, São Paulo; Chubb, Ibis, 1910, p. 57—Sapucay, Paraguay; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 459, 492, 1912—Yera Guarany, Paraná; Tremoleras, El Hornero, 2, p. 11, 1920—Uruguay (San José, Flores, Treinta y Tres, Cerro Largo).

Rhynchotus rufescens allenii Chubb, Bull. Brit. Orn. Cl., 38, p. 30, Dec. 29, 1917—Chapada, Matto Grosso (type in British Museum).

¹ Cf. Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 479 (note 3), 1929, and Naumburg, Bull. Amer. Mus. N. H., 60, p. 60, 1930.

Rhynchotus rufescens rufescens Holt, Bull. Amer. Mus. N. H., 57, p. 279, 1928—Alto Itatiaia, São Paulo; Naumburg, l.c., 60, p. 59, 1930—Vilhena, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 79 (in text), 1930—Misiones and Santa Catharina (Oxford); Peters, Bds. World, 1, p. 24, 1931 (range); Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 139, 1935 (range); Pinto, Rev. Mus. Paul., 20, p. 30, 1936—Rio das Almas, Goyáz.

Range.—Eastern Bolivia; southern Brazil, from Matto Grosso, Goyáz, Minas Geraes, and Bahia (probably even Pernambuco) south to Rio Grande do Sul; Uruguay; Paraguay (east of the Rio Paraná); and northeastern Argentina (Misiones).¹

Field Museum Collection.—6: Brazil (Descalvados, Matto Grosso, 1; Fazenda Capão Bonita, Vaccaria, Matto Grosso, 5).

Conover Collection.—25: Bolivia (Buena Vista, Santa Cruz, 4); Brazil (near Cavalcante, Goyáz, 1; Fazenda Capão Bonita, Vaccaria, Matto Grosso, 8); Paraguay (Ubocagali, 1; Molinasque, 1; Villa Rica, 2; Mbocaiaty, 1; Horqueta, 6); Argentina (Santa Ana, Misiones, 1).

****Rhynchotus rufescens pallescens* Kothe.² ARGENTINE TINAMOU.**

Rhynchotus pallescens Kothe, Journ. Orn., 55, p. 164, 1907—Tornquist, Prov. Buenos Aires, Argentina (type in Berlin Museum examined).

¹ Birds from Matto Grosso (*R. r. alleni*) are identical with a series from São Paulo, and it is probable that the late Charles Chubb, when naming the Chapada specimen, compared it with the Argentine form (*R. r. pallescens*). Certain Brazilian individuals, by more grayish tone of the posterior under parts, exhibit some approach to the latter race. The series from Villa Rica, Paraguay, does not seem to be separable from São Paulo specimens, which may be regarded as topotypical *rufescens*. Two adults from Oxford, Santa Catharina, as well as three from Misiones, are decidedly *rufescens*. We have not seen any material from Rio Grande do Sul or Uruguay. Birds from that region need critical examination.

Additional specimens examined.—Brazil: Bahia, 2; Lamarão, Bahia, 1; Ypanemá, São Paulo, 3; Mattodentro, São Paulo, 1; Itararé, São Paulo, 1; Oxford, Santa Catharina, 2; Chapada, Matto Grosso, 2; Vilhena, Matto Grosso, 2; Porto do Faya, Matto Grosso, 1.—Argentina: Misiones, 2.

² *Rhynchotus rufescens pallescens* Kothe: Similar to *R. r. calingae* and agreeing in pale dorsal barring, as well as in decidedly grayish under parts, but distinguished by having the neck above and below much paler ochraceous, this color being sometimes barely suggested.

This form, which differs from the nominate race by much more grayish coloration throughout, varies in the amount of ochraceous suffusion on the neck. Some individuals have hardly less than the average *rufescens*, but others are much grayer, and there is not one in the series that reaches the stage with bright ochraceous-tawny neck and chest so frequently met with in southern Brazil.

In *R. arcanus*, the type of which has been examined by the senior author, we cannot see anything but an individual variant of *R. r. pallescens*. Birds from the banks of the Rio Paraná, in general coloration, are exactly like others from Buenos Aires, and the chief character of *R. arcanus*, the presence of black bars on greater wing coverts, alula, and outer web of the outer primaries, is not a constant feature. Although a male from Mocoví, Santa Fé, has the inner alula feathers and the greater coverts more or less distinctly barred, and a few blackish

Rhynchotus rufescens (not *Tinamus rufescens* Temminck) Darwin, Zool. Voy. Beagle, 3, Birds, p. 120, 1841—part, near Bahia Blanca, Buenos Aires; Burmeister, Journ. Orn., 8, p. 259, 1860—part, Paraná; idem, Reise La Plata St., 2, p. 498, 1861—part, Paraná and Rosario; Sclater and Hudson, Proc. Zool. Soc. Lond., 1872, p. 546—Buenos Aires to the Rio Colorado (habits); Doering, Period. Zool., 1, p. 255, 1874—Rio Guayquiraró, Corrientes; Durnford, Ibis, 1876, p. 166—Chivilcoy, Buenos Aires; idem, Ibis, 1877, p. 203—northern Buenos Aires Province; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 51, 1881—between Lavalle and Carhué, Buenos Aires; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 86, 1884—Tandil, Buenos Aires; Barrows, Auk, 1, p. 317, 1884—Concepción del Uruguay, Entre Ríos; Withington, Ibis, 1888, p. 473—Lomas de Zamora, Buenos Aires; C. Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 245, 1888—Bahia Blanca; Sclater and Hudson, Arg. Orn., 2, p. 209, 1889—Buenos Aires to the Rio Colorado; Frenzel, Journ. Orn., 39, p. 123, 1891—Córdoba; Kerr, Ibis, 1892, p. 151—lower Pilcomayo; Holland, Ibis, 1892, p. 214—Est. Espartillar, Buenos Aires; Salvadori, Cat. Bds. Brit. Mus., 27, p. 548, 1895—part, spec. i, Buenos Aires; Kerr, Ibis, 1901, p. 236—between Carayá Vuelta and Riacho Verde, Gran Chaco; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 186, 1910 (range in Argentina); Grant, Ibis, 1911, p. 477—Buenos Aires (Cape San Antonio; Tuyú, Ajó) and Formosa (Colonia Mihanovitch); Marelli, El Hornero, 1, p. 75, 1918—Curuzú Cuatiá, Corrientes; Gibson, Ibis, 1920, p. 88—Cape San Antonio, Buenos Aires; Daguerre, El Hornero, 2, p. 259, 1922—Rosas, Buenos Aires; Pereyra, l.c., 3, p. 174, 1923—Conhelo, Pampa; Wilson, l.c., 3, p. 350, 1926—Venado Tuerto, Dept. General López, Santa Fé; Hudson, l.c., 4, p. 176, 1928—Buenos Aires to the Rio Colorado (habits).

Rhynchotus rufescens rufescens Hartert and Venturi, Nov. Zool., 16, p. 264, 1909—Coronel Dorrego and San Vicente, Buenos Aires, and Mocoví, Santa Fé.

Rhynchotus arcanus Wetmore, Journ. Wash. Acad. Sci., 11, p. 434, Nov. 4, 1921—Paraná, Entre Ríos, Argentina (type in U. S. National Museum examined); Liebermann, Rev. Chil. Hist. Nat., 37, p. 152, 1933 (crit.); Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 141, 1935—part, Santa Fé.

Rhynchotus rufescens pallelescens Dabbene, El Hornero, 3, p. 101, 1923 (range); Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 597, 1924—Prov. Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 40, 1926—south of Cape San

marks on the outer web of the second primary near the base, there is no trace of dusky markings on either primaries or their coverts in an adult female from Rio de Oro (Colonia Grande Vedia), Chaco. On the other hand, we noticed distinct blackish cross-bars on the greater wing coverts in two adult *rufescens* from Brazil (one from Chapada, Matto Grosso, and the other from São Paulo), which clearly speaks for the individual nature of this variation. We have not been able to consult Liebermann's paper cited above, and therefore do not know on what grounds he proposes to maintain *R. arcanus* as distinct.

Additional material examined.—Argentina: Tornquist, Buenos Aires, 1 (type of *R. pallelescens*); Coronel Dorrego, Bahia Blanca, 1; San Vicente, Buenos Aires, 1; Buenos Aires, 1; Mocoví, Santa Fé, 1; San José, Formosa, 1; Rio de Oro, Colonia Grande Vedia, Chaco, 1.

Antonio, Buenos Aires, and Riacho Pilaga, Formosa (crit., habits); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 77, 1930—San José and Mission Taacaglé, Formosa (crit.); Peters, Bds. World, 1, p. 24, 1931 (range); Marelli, El Hornero, 5, p. 193, 1933—Saldungaray, southern Buenos Aires; Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 139, 1935—Cristiano Muerto, Buenos Aires, and Concepción del Uruguay, Entre Ríos (range).

Range.—Northeastern Argentina, from the Formosan Chaco and Entre Ríos south to southern Buenos Aires (Rio Colorado), west to Córdoba.

Field Museum Collection.—1: Argentina (Henderson, Buenos Aires, 1).

Conover Collection.—9: Argentina (Cambacérès, Buenos Aires, 8; Pehuajo, Buenos Aires, 1).

****Rhynchotus rufescens maculicollis* G. R. Gray.¹ SPOTTED-NECKED TINAMOU.**

Rhynchotus maculicollis G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 102, 1867—Bolivia (type in British Museum); Schlater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 642—Bolivia; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 38, 1880—Bolivia (crit.); Salvadori, Cat. Bds. Brit. Mus., 27, p. 550, pl. 14, 1895—Tanampaya, Bolivia; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—San Pablo, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 186, 1910—San Pablo; idem, Bol. Soc. Physis, 1, p. 251, 1913—San Pablo, Norco, and Villa Nougues, Tucumán; Dinelli, El Hornero, 4, p. 272, 1929—northwestern Argentina.

Rhynchotus rufescens (not *Tinamus rufescens* Temminck) Burmeister, Journ. Orn., 6, p. 161, 1858—"near Mendoza";² idem, l.c., 8, p. 259, 1860—part, Tucumán; idem, Reise La Plata St., 2, p. 498, 1861—part, Tucumán; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 218, 1902—San Pablo, Tucumán; Baer, Ornith., 12, p. 233, 1904—La Criolla, Tucumán.

Rhynchotus maculicollis subsp.(?) Hartert and Venturi, Nov. Zool., 16, p. 265, 1909—Villa Nougues, San Pablo, and Norco, Tucumán (crit.).

Rhynchotus rufescens maculicollis Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 79, 1930—Tanampaya, Bolivia (crit.); Peters, Bds. World, 1, p. 24, 1931 (range); Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 141, 1935—Tucumán, Salta, and Jujuy.

Range.—Western and southern Bolivia and northwestern Argentina (provinces of Jujuy, Salta, and Tucumán).

¹ *Rhynchotus rufescens maculicollis* G. R. Gray, as has been pointed out by Laubmann, is merely a well-marked race, the dusky streaks on the foreneck being occasionally suggested in individuals of the eastern forms.

Additional material examined.—Bolivia: Iquico, La Paz, 2; San Antonio, La Paz, 1; Tanampaya, 3.—Argentina: Norco, Tucumán, 2.

² This record is most certainly a mistake. In his later papers Burmeister did not include Mendoza among the localities where he met with the species.

Conover Collection.—10: Bolivia (Lambate, La Paz, 1; Cerro San Benito, Cochabamba, 4); Argentina (Sierra de Vipos, Tucumán, 2; Sierra de Tucumán, Tucumán, 3).

Genus NOTHOPROCTA Sclater and Salvin¹

Nothoprocta Sclater and Salvin, Nomencl. Av. Neotrop., pp. 153, 156, 1873—type, by orig. desig., *Crypturus perdicarius* Kittlitz.

Nothoprocta taczanowskii Sclater and Salvin.² TACZANOWSKI'S TINAMOU.

Nothoprocta taczanowskii Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 564—Maraynioc, Junín, Peru (nomen nudum); Sclater and Salvin, l.c., pp. 678, 679, pl. 84—Cchachupata, Dept. Cuzco, and Maraynioc, Junín, Peru (type, from Maraynioc, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 97, 1927); Taczanowski, Orn. Pér., 3, p. 304, 1886—Maraynioc; Salvadori, Cat. Bds. Brit. Mus., 27, p. 551, 1895—Maraynioc and Cchachupata, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 47—Maraynioc (Paria-yacu); Peters, Bds. World, 1, p. 24, 1931 (range).

(?) *Nothoprocta godmani* Taczanowski, Orn. Pér., 3, p. 305, 1886—Cchachupata, Dept. Cuzco, Peru (type in British Museum).

Range.—Temperate zone of central Peru (Maraynioc, Junín) and (?) southeastern Peru (Cchachupata, Cuzco).

Nothoprocta kalinowskii Berlepsch and Stolzmann.³ KALINOWSKI'S TINAMOU.

Nothoprocta kalinowskii Berlepsch and Stolzmann, Orn. 11, p. 192, 1901—Licamachay, Dept. Cuzco, Peru (type in collection of Count Branicki, now in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 97, 1927); idem, l.c., 13, p. 104, 1906—Lica-

¹ A synopsis of the members of this genus expressing their natural affinities seems hardly possible at this time owing to the lack of adequate series. Several species are known only from one or two specimens, and the types scattered in various institutions are not accessible for direct comparison, the difficulties being, furthermore, increased by variation according to season and age.

² *Nothoprocta taczanowskii* Sclater and Salvin, of which the senior author has examined a single male from the type locality, seems to differ from the other species by having the inner webs of the primaries conspicuously barred with buff, aside from other characters.

Whether the birds from the Cuzco region, described as *N. godmani*, are really quite the same or merely represent the immature plumage, cannot be determined without examination of adult individuals.

³ *Nothoprocta kalinowskii* Berlepsch and Stolzmann, based on a single male, is described as similar to *N. branickii*, but larger, the wings much longer; lower breast and abdomen mostly gray, dotted and variegated with buffy; outer web of secondaries paler ochraceous; upper parts slightly darker; wing coverts more grayish, etc. Wing, 183; tail, 75; bill, 25; tarsus, 40.

Probably a race of *N. ornata*.

machay, northern Cuzco; Chapman, Bull. U. S. Nat. Mus., 117, p. 44, 1921—Licamachay (ex Berlepsch and Stolzmann); Peters, Bds. World, 1, p. 24, 1931 (range).

Range.—Temperate zone of southeastern Peru (Licamachay, near Cuzco).

Nothoprocta ornata branickii Taczanowski.¹ BRANICKI'S TINAMOU.

Nothoprocta branickii Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 563—Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 97, 1927); idem, Orn. Pér., 3, p. 308, 1886—Junín; Salvadori, Cat. Bds. Brit. Mus., 27, p. 558, 1895—Junín; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 47—Baños and Tarma (Queta), Junín; Peters, Bds. World, 1, p. 25, 1931 (range).

Nothoprocta ornata branickii Morrison, Ibis, 1939, p. 460—above Lircay (crit.).

Range.—Temperate zone of central Peru (Baños and Tarma, Dept. Junín; above Lircay, Dept. Huancavelica).

***Nothoprocta ornata ornata** (G. R. Gray). ORNATE TINAMOU.

Rhynchotus ornatus G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 102, 1867—Bolivia (cotypes in British Museum).

Nothoprocta ornata Sclater and Salvin, Nomencl. Av. Neotr., p. 153, 1873—Bolivia; idem, Proc. Zool. Soc. Lond., 1874, p. 680 (crit.); idem, l.c., 1879, p. 642—Bolivia; Salvadori, Cat. Bds. Brit. Mus., 27, p. 557, pl. 17, 1895—Bolivia; Berlepsch and Stolzmann, Ornith., 13, p. 130, 1906—Pichacani and Pujuni, Puno, Peru; Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 217, 1909—Lake Poopo, Bolivia; Chubb, Ibis, 1919, p. 12—Lake Pampa Aullagas, Oruro, Bolivia.

Nothoprocta ornata ornata Peters, Bds. World, 1, p. 25, 1931 (range).

Range.—Puna zone of extreme southern Peru (Pichacani and Pujuni, Dept. Puno) and western Bolivia (depts. of La Paz, Cochabamba, and Oruro).²

Conover Collection.—17: Bolivia (Guaqui, La Paz, 1; Tiraque, Cochabamba, 1; Vacas, Cochabamba, 8); Peru (Chucuito, Puno, 2; Yunguyo, Puno, 5).

¹ *Nothoprocta ornata branickii* Taczanowski: Nearest to *N. o. ornata*, but smaller; upper parts much darker, grayer, and lacking the broad buffy bars; bars on secondaries tawny instead of pale buff; lower breast and abdomen more rufescent. Wing, 160; bill, 26.

Three specimens from Junín examined by Boardman Conover; one from above Lircay, by C. E. Hellmayr.

² *Additional specimens examined*.—Bolivia: Oruro, 4.

***Nothoprocta ornata rostrata** Berlepsch.¹ LONG-BILLED
TINAMOU.

Nothoprocta ornata rostrata Berlepsch, Ornith., 14, p. 371, Feb., 1907—Cumbre de Malamala, Tucumán (type in coll. of H. von Berlepsch, now in Frankfurt Museum); Hartert and Venturi, Nov. Zool., 16, p. 265, 1909—Las Ciénagas, Tucumán; Lillo, Apunt. Hist. Nat., 1, p. 21, 1909—Cumbre de Malamala; Dinelli, El Hornero, 4, p. 273, 1929—Cerro de Tucumán (nest and eggs); Budin, l.c., 4, p. 402, 1931—Sierras de Zenta, Jujuy; Peters, Bds. World, 1, p. 25, 1931—Jujuy and Tucumán; Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 142, 1935 (range).

Nothoprocta ornata (not *Rhynchotus ornatus* Gray) Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 218, 1902—Cuesta de Malamala and Cerro de la Ciénaga, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Santa Catalina, Jujuy; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 72, 1905—Cuesta de Malamala and Cerro de la Ciénaga; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 187, 1910 (range in Argentina).

Range.—Puna zone of northwestern Argentina, in provinces of Jujuy, Catamarca, and Tucumán.

Field Museum Collection.—1: Argentina (El Alisal, Catamarca, 1).

Conover Collection.—5: Argentina (Sierra de Zenta, Jujuy, 2; Aconquija, Catamarca, 3).

***Nothoprocta perdicaria perdicaria** (Kittlitz). CHILEAN
TINAMOU.

Crypturus perdicarius Kittlitz, Mém. Acad. Sci. St. Petersb., sav. étr., 1, livr. 1, p. "192" [recte 193], pl. 12, 1830—around Valparaíso (type in Leningrad Museum; cf. Chrostowski, Ann. Zool. Mus. Pol. Hist. Nat., 1, p. 18, 1921); Meyen, Nov. Act. Acad. Caes. Leop.-Carol. Nat. Curios., 16, Suppl., 1, p. 99, 1834—Valparaíso; Kittlitz, Denkw. Reise, 1, p. 150, 1858—near Valparaíso.

Rhynchotus perdix ("Molina") Gray (and Mitchell), Gen. Bds., 3, p. [525], 1844—new name for *Crypturus perdicarius* Kittlitz; Pelzeln, Reise Novara, 1, Vögel, p. 113, 1865—Chile.

Nothura punctulata Des Murs, in Gay, Hist. Fís. Pol. Chile, Zool., 1, p. 391, 1847—central provinces of Chile (type in Paris Museum examined); Selater, Proc. Zool. Soc. Lond., 1867, p. 331—Chile (ex Des Murs); Waugh and Lataste, Act. Soc. Scient. Chili, 4, p. lxxxviii, 1894—Peñaflor, Santiago.

Nothura perdicaria Darwin, Zool. Voy. Beagle, 3, Birds, p. 119, 1841—part, Valley of "Guasco," Atacama; Fraser, Proc. Zool. Soc. Lond., 11, p. 115, 1843—Chile (habits, egg); Yarrell, l.c., 15, p. 53, 1847—Chile (egg descr.); Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 192, 1855—Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago (nesting habits); Philippi, Anal. Univ. Chile, 31, p. 270, 1869—Chile (in part); Schlegel, Mus. Pays-

¹*Nothoprocta ornata rostrata* Berlepsch differs from the nominate race by decidedly stronger bill and slightly paler, more buffy dorsal surface, while the chest generally is less grayish. Wing, 202-205; tail, 100; bill, 35-40.

Bas, 8, Tinami, p. 40, 1880—Chile; Waugh and Lataste, Act. Soc. Scient. Chili, 4, p. clxxii, 1894—San Alfonso (Quillota), Valparaíso.

Rhynchotus perdicarius G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 103, 1867—Valparaíso.

Rhynchotus punctulatus Sclater, Proc. Zool. Soc. Lond., 1867, p. 339—Chile (ex Des Murs).

Rhynchotus cinerascens (not *Nothura cinerascens* Burmeister) G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 103, 1867—Coquimbo; Sclater, Proc. Zool. Soc. Lond., 1867, pp. 331, 339—Coquimbo, Chile.

Nothoprocta perdicaria Reed, Anal. Univ. Chile, 49, p. 569, 1877—Cauquenes, Colchagua; Sharpe, Proc. Zool. Soc. Lond., 1881, p. 18—Coquimbo; MacFarlane, Ibis, 1887, p. 202—Coquimbo; Salvadori, Cat. Bds. Brit. Mus., 27, p. 553, 1895—part, spec. d, h, Valparaíso, central Chile; Reed, Anal. Univ. Chile, 93, p. 212, 1896—Chile (in part); Schalow, Zool. Jahrb., Suppl., 4, p. 647, 1898—Santiago; Fuentes, Bol. Mus. Nac. Chile, 7, p. 290, 1914—Easter Island (introduced); Barros, Rev. Chil. Hist. Nat., 25, p. 170, 1921—Cordillera of Aconcagua; Reed, l.c., 28, p. 57, 1924—La Serena, Coquimbo (food); Housse, l.c., 29, p. 149, 1925—San Bernardo, Santiago; Barros, l.c., 20, p. 263, 1926—part, Rio Blanco, Aconcagua (food); Jaffuel and Pirion, l.c., 31, p. 112, 1927—Marga-Marga Valley, Valparaíso.

Nothoprocta coquimbica Salvadori, Cat. Bds. Brit. Mus., 27, p. 554, pl. 15, 1895—Coquimbo, Chile (cotypes in British Museum examined).

Nothoprocta perdicaria perdicaria Wetmore, Bull. U. S. Nat. Mus., 133, p. 425, 1926—Concon, Valparaíso; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 424, 1932—northern Chile (from Valley of Huasco, Atacama, to the Rio Cachapoal, Colchagua) (crit.); Peters, Bds. World, 1, p. 26, 1931 (range).

Range.—Northern and central Chile, from southern Atacama (Huasco Valley) to Colchagua (Rio Cachapoal). Introduced on Easter Island.¹

Field Museum Collection.—1: Chile (Romero, Coquimbo, 1).

Conover Collection.—10: Chile (Paiguano, Coquimbo, 1; Romero, Coquimbo, 1; Prov. Santiago, 1; Angostura de Paine, Santiago, 1; Baños de Cauquenes, Colchagua, 6).

****Nothoprocta perdicaria sanborni* Conover.² SANBORN'S TINAMOU.**

¹ The type of *N. punctulata* agrees with specimens from the type locality (Valparaíso). Birds from Coquimbo (*N. coquimbica*) average slightly more grayish on the upper parts, but the divergency is quite insignificant in our specimens, and until some range can be assigned to this variety it seems best not to recognize it for the present.

Additional material examined.—Coquimbo, 2; Peñaflor, Santiago, 1; Valparaíso, 1; "Chile" (unspecified), 6.

² *Nothoprocta perdicaria sanborni* Conover: Differs from the nominate race by more rufescent barring of the dorsal surface and deep clay color under parts

Nothoprocta perdicaria sanborni Conover, Auk, 41, p. 334, April, 1924—Mafil, Valdivia, Chile (type in Conover Collection, Field Museum of Natural History); Peters, Bds. World, 1, p. 26, 1931 (range); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 426, 1932—southern Chile, from Curicó to Llanquihue (crit.).

Nothura perdicaria (not *Crypturus perdicarius* Kittlitz) Darwin, Zool. Voy. Beagle, 3, Birds, p. 119, 1841—Chile (in part); Des Murs, in Gay, Hist. Fis. Pol. Chile, Zool., 1, p. 392, 1847—Chile; Boeck, Naumannia, 1855, p. 508—Roble, Valdivia; Philippi, Anal. Univ. Chile, 31, p. 270, 1868—Chile (in part).

Rhynchotus perdicarius Sclater, Proc. Zool. Soc. Lond., 1867, pp. 331, 339—Chile.

Nothura punctulata (not of Des Murs) Lataste, Act. Soc. Scient. Chili, 3, p. cxvi, 1893—Ninhue (Itata), Maule.

Nothoprocta perdicaria Salvadori, Cat. Bds. Brit. Mus., 27, p. 553, 1895—part, spec. e-g, Maquegua, Arauco, and Rio Bueno, Valdivia; Reed, Anal. Univ. Chile, 93, p. 212, 1896—Chile (in part); Lane, Ibis, 1897, p. 314—Maquegua (Arauco), Rio Bueno (Valdivia), Puerto Varas and Osorno (Llanquihue); Barros, Rev. Chil. Hist. Nat., 23, p. 15, 1919—Nilahue, Curicó; Paessler, Journ. Orn., 70, p. 431, 1922—Coronel (habits, eggs); Barros, Rev. Chil. Hist. Nat., 30, p. 263, 1926—Ranquil (Valley of Nilahue), Curicó (food); Bullock, l.c., 33, pp. 126, 194, 1929—Nahuelbuta and Angol, Malleco; Barros, l.c., 34, p. 31, 1930—Curicó (breeding habits).

Range.—Southern Chile, from Curicó to Llanquihue.

Field Museum Collection.—4: Chile (Mafil, Valdivia, 2; Riñihue, Valdivia, 1; Curacautin, Cautin, 1).

Conover Collection.—14: Chile (Mafil, Valdivia, 3; Quirihue, Maule, 1; Angol, Bio Bio, 9; Puerto Montt, Llanquihue, 1).

****Nothoprocta cinerascens* (Burmeister).¹ CINEREOUS TINAMOU.**

Nothura cinerascens Burmeister, Journ. Orn., 8, p. 259, 1860—Tucumán (type in Halle Museum): idem, Reise La Plata St., 2, p. 498, 1861—near Córdoba and Tucumán; Salvin, Ibis, 1880, p. 364—Tucumán and neighborhood of Mendoza; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 40 (note), 1880—Córdoba (crit.); White, Proc. Zool. Soc. Lond., 1883, p. 43—Cosquin, Córdoba; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 403, 1890—Córdoba.

passing into buff along the middle line, without any gray (or mere suggestion of it) on the chest.

Birds from Valdivia and Llanquihue have the racial characters most strongly pronounced, while those from Malleco and Maule, by reason of their having the chest underlaid with grayish and less intensely colored flanks, form the transition to typical *perdicaria*.

¹ *Nothoprocta cinerascens* (Burmeister), although differing, in addition to color characters, by larger reticulations on the posterior side of the tarsus, may prove to be conspecific with *N. perdicaria*, which it obviously replaces east of the Andean chain.

Nothoprocta cinerascens Cabanis, Journ. Orn., 26, p. 198, 1878—Sierra de Córdoba; Sclater and Hudson, Arg. Orn., 2, p. 210, 1889—Córdoba and Tucumán; Frenzel, Journ. Orn., 39, p. 124, 1891—same localities; Koslowsky, Rev. Mus. La Plata, 6, p. 287, 1895—Chilecito, La Rioja; Salvadori, Cat. Bds. Brit. Mus., 27, p. 552, 1895—Córdoba (Cosquin), Mendoza, and Tucumán; idem, Boll. Mus. Zool. Torino, 10, No. 208, p. 24, 1895—Santa Rosa, Salta; idem, l.c., 12, No. 292, p. 36, 1897—Tala, Salta; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 218, 1902—Tapia and Trancas, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 72, 1905—Tucumán, Tapia, and Trancas, Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 265, pl. 3, fig. 12 (egg), 1909—Tapia, Tucumán, and Arenal, Salta; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 186, 1910—Córdoba and La Rioja to Salta; Reed, Av. Prov. Mendoza, p. 5, 1916—La Paz and Tunuyán, Mendoza; Sanzin, El Hornero, 1, p. 147, 1918—Mendoza; Chubb, Ibis, 1919, p. 10—El Carrizal, Sierra de Córdoba; Giacomelli, El Hornero, 3, p. 82, 1923—La Rioja; Ménégau, Rev. Franç. d'Orn., 1925, p. 222—near Icaño, Santiago del Estero; Wetmore, Bull. U. S. Nat. Mus., 133, p. 39, 1926—near Tapia, Tucumán; Pereyra, El Hornero, 4, p. 28, 1927—Conhelo (F.C.O.), Pampa Central; Dinelli, l.c., 4, p. 273, 1929—Tucumán (habits, nest, and eggs); Castellanos, l.c., 4, p. 364, 1931—Valle de los Reartes, Córdoba; Peters, Bds. World, 1, p. 25, 1931 (range); Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 143, 1935 (synon., range); Brodkorb, Proc. Biol. Soc. Wash., 50, p. 33, 1937—265 km. west of Puerto Casado, Paraguayan Chaco.

Range.—Western Argentina, from La Pampa, Mendoza, San Luis, and Córdoba north to the Bolivian boundary and the adjacent parts of the Paraguayan Chaco.

Conover Collection.—20: Paraguay (Chaco, 265 km. west of Puerto Casado, 5); Argentina (Dept. Orán, 1; Vipos, Tucumán, 2; Tapia, Tucumán, 1; Pinto, Santiago del Estero, 1; El Carrizal, Córdoba, 3; Tunuyán, Mendoza, 7).

****Nothoprocta pentlandii pentlandii* (G. R. Gray). PENTLAND'S TINAMOU.**

Rhynchotus pentlandii G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 103, 1867—Andes of Bolivia (type in British Museum examined).

Nothoprocta doeringi (Schulz MS.) Cabanis, Journ. Orn., 26, p. 198, 1878—Sierra Chica, near Córdoba (type in Berlin Museum); Sclater, Proc. Zool. Soc. Lond., 1878, p. 461—Sierra de Córdoba; White, l.c., 1883, p. 432—Cosquin, Córdoba.

Nothura doeringi Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 403, 1890—Córdoba.

Nothoprocta pentlandii Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 642—Sicasica and "Chiquitos," Bolivia; Sclater and Hudson, Arg. Orn., 2, p. 210, 1889—Córdoba (crit.); Frenzel, Journ. Orn., 39, p. 124, 1891—Sierra de Córdoba; Salvadori, Cat. Bds. Brit. Mus., 27, p. 555, pl. 16, 1895—Bolivian Andes and Sierra de Córdoba; Lillo, Anal. Mus. Nac.

Buenos Aires, 8, p. 218, 1902—Cumbre de la Hoyada, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Rosario de Lerma, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 72, 1905—Cumbre de la Hoyada and Taff, Tucumán; Giacomelli, Anal. Soc. Cient. Arg., 63, p. 301, 1907—Abra, La Rioja; Hartert and Venturi, Nov. Zool., 16, p. 265, 1909—Norco, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 186, 1910 (range in Argentina); Reed, Av. Prov. Mendoza, p. 5, 1916—Cerro de Villavicencio, Mendoza; Sanzin, El Hornero, 1, p. 147, 1917—Cerro Pelado, Mendoza; Reed, l.c., 1, p. 267, 1919—Quebrada de la Chilca, Dept. Las Heras, Mendoza (nest and eggs descr.); Giacomelli, El Hornero, 3, p. 82, 1923—La Rioja; Dinelli, l.c., 4, p. 274, 1929—Cerro of Tucumán (nest and eggs); Castellanos, l.c., 4, p. 365, 1931—Valle de los Reartes, Córdoba, and Sierra del Cajón, Alisal, Salta.

Nothoprocta moebiusi Berlepsch, Bericht 17. Jahresvers. Allg. Deuts. Orn. Ges., 1892, p. 13, Dec. 25, 1892—Valle Grande, western Santa Cruz, Bolivia (type in coll. of H. von Berlepsch, now in Frankfurt Museum); idem, Journ. Orn., 40, p. 455, "1892" [=1893] (reprint).

Nothoprocta pentlandii Chubb, Ibis, 1919, p. 10—Chulumani (La Paz), Parotani (Cochabamba), and El Cabrada (Chuquisaca), Bolivia (crit.).

Nothoprocta pentlandii pentlandii Peters, Bds. World, 1, p. 26, 1931 (range).

Nothoprocta pentlandii pentlandii Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 144, 1935 (synon., range).

Range.—Temperate zone of western Argentina, south to Mendoza and the Sierra of Córdoba, and Bolivia (depts. of Chuquisaca, Santa Cruz, Cochabamba, and La Paz).¹

Conover Collection.—18: Argentina (mountains west of Yala, Jujuy, 2; Norco, Dept. Trancas, Tucumán, 1); Bolivia (Cochabamba, 1; Pocona, Cochabamba, 6; Valle de Cochabamba, Cochabamba, 1; Colomi, Cochabamba, 2; Tutimajo, Cochabamba, 1; Totora, Cochabamba, 1; Comparapa, Santa Cruz, 3).

****Nothoprocta pentlandii oustaleti* Berlepsch and Stolzmann.²**
OUSTALET'S TINAMOU.

¹ Birds from Argentina are identical with the Bolivian ones.

Additional material examined.—Bolivia: Andes, 1 (the type); Chulumani, La Paz, 1; Parotani, Cochabamba, 1; El Cabrada, Chuquisaca, 1.—Argentina: Sierra de Córdoba, 2.

² *Nothoprocta pentlandii oustaleti* Berlepsch and Stolzmann: Similar to the nominate race, but larger; forehead brown instead of grayish; superciliaries buffy instead of grayish; lateral portion of dorsal feathers beyond the much broader and more conspicuous buffy white longitudinal stripes clear gray instead of pale brown; sides of head more buffy; throat buffy instead of white or gray and with dusky edges to the feathers of the lower throat; neutral gray jugular area densely marked with much larger buffy spots (in *pentlandii* there are at best a few scattered, tiny, nearly white spots); breast and sides deep ochraceous-buffy instead of nearly white to pinkish buff, etc. Wing, 153; bill, 23.

The three birds from the Andes above Lima answer very well the memorandum about the type of *oustaleti* made by the senior author a number of years ago, except for having buffy white instead of pure white mid-abdomen. The junior

Nothoprocta oustaleti Berlepsch and Stolzmann, Orn. 11, p. 191, 1901—Cora Cora, Dept. Ayacucho, Peru (type in coll. of X. Branicki, now in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 97, 1927); iidem, l.c., 13, p. 73, 1906—Cora Cora, Sanquibamba; Peters, Bds. World, 1, p. 25, 1931—Cora Cora.

Nothoprocta ambigua Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 293, Feb. 23, 1915—Hacienda Llagueda, northeast of Otuzco, Libertad, Peru (type in Field Museum of Natural History).

Nothoprocta pentlandii simonsi Chubb, Bull. Brit. Orn. Cl., 38, p. 30, Dec. 29, 1917—San Pablo, Cajamarca, Peru (type in British Museum examined); idem, Ibis, 1919, p. 11—San Pablo.

Nothoprocta pentlandii simonsi Chapman, Bull. Amer. Mus. N. H., 55, p. 150, 1926—Punta Santa Ana, Loja, Ecuador (spec. examined).

Nothoprocta pentlandii ambigua Peters, Bds. World, 1, p. 25, 1931—southern Ecuador to northern Peru.

Range.—Temperate zone of southern Ecuador (Punta Santa Ana, Prov. del Oro; Malacatos, Prov. Loja) and western Peru (San Pablo, Cajamarca; Hacienda Llagueda, northeast of Otuzco, Libertad; Macate, Ancachs; San Mateo, Andes above Lima; Cora Cora, Ayacucho).

Field Museum Collection.—2: Peru (Hacienda Llagueda, northeast of Otuzco, Libertad, 1; Macate, Ancachs, 1).

Conover Collection.—12: Ecuador (Malacatos, Loja, 10); Peru (San Mateo, Lima, 2).

Nothoprocta (pentlandii?) fulvescens Berlepsch.¹ FULVESCENT TINAMOU.

Nothoprocta fulvescens Berlepsch, Verh. 5th Intern. Zool. Congr., p. 548, 1902—Urcos, Dept. Cuzco, Peru (type in coll. of H. von Berlepsch, now in

author has compared the two birds from San Mateo with the specimens listed from southern Ecuador and northwestern Peru and cannot see any differences not covered by individual variation excepting a tendency toward a purer white throat in birds from Ecuador.

Additional material examined.—Ecuador: Punta Santa Ana, Prov. del Oro, 1.—Peru: San Pablo, Cajamarca, 1; Hacienda Tulpo, southeast of Huamachuco, Libertad, 2; Andes above Lima, 1.

¹*Nothoprocta (pentlandii?) fulvescens* Berlepsch is stated to be nearest to *N. p. oustaleti*, but to differ by having the upper throat, middle abdomen, and tibial feathers buff, somewhat paler than lower breast and flanks; the foreneck duller grayish and more profusely spotted with buff; the edging to the dorsal feathers more brownish; the marginal spots on the outer webs of the primaries more buffy (less whitish); the ochraceous bars on the secondaries broader, etc. Wing, 163–165½; tarsus, 42; bill, 26–28½.

This little-known tinamou, which is autotypically unknown to the authors, seems to be another representative of the *N. pentlandii* complex. It is extremely questionable whether the immature specimens from Ollantaytambo are really *fulvescens*. The junior author, who has inspected one of them, found it very similar to *N. c. peruviana*.

Frankfort Museum); (?)Chapman, Bull. U. S. Nat. Mus., 117, p. 43, 1921—Ollantaytambo, Urubamba, Peru; Peters, Bds. World, 1, p. 25, 1931 (range).

Range.—Temperate zone of southeastern Peru (Urcos, Urubamba Valley, Dept. Cuzco).

***Nothoprocta curvirostris curvirostris** Selater and Salvin.
CURVE-BILLED TINAMOU.

Nothoprocta curvirostris Selater and Salvin, Nomencl. Av. Neotr., p. 163, 1873—Calacali and Puellaro, Ecuador (type, from Calacali, in Salvin-Godman Collection, British Museum); iidem, Proc. Zool. Soc. Lond., 1874, p. 680 (crit.); Berlepsch and Taczanowski, l.c., 1884, p. 312—Cechce, Ecuador; Salvadori, Cat. Bds. Brit. Mus., 27, p. 556, 1895—part, spec. a-c, Ecuador (Calacali, Puellaro, Matagan); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 52, 1900—Chaupi (Illiniza), Páramo del Corazón, Cañar, and Sigsig, Ecuador (descr. of young, crit.); Goodfellow, Ibis, 1902, p. 232—Pichincha; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B3, 1911—Pichincha; Chubb, Ibis, 1919, p. 11—Corazón, Ecuador (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 14, 1922—Singuña, above Quito, Fanlagua, and Cotopaxi, Ecuador (eggs descr.); Chapman, Bull. Amer. Mus. N. H., 55, p. 151, 1926—Pichincha, El Corazón, and Bestión, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 353, 1927—Cerro Mojanda, Ecuador; Peters, Bds. World, 1, p. 25, 1931—part, Ecuador.

Rhynchotis perdix (not *Rhynchotus perdix* G. R. Gray) Selater, Proc. Zool. Soc. Lond., 28, p. 97, 1860—Calacali and Puellaro, Ecuador.

Nothura curvirostris Schlegel, Mus. Pays-Bas, 8, Tinami, p. 41, 1880 (descr.).

Range.—Páramo zone of Ecuador.

Conover Collection.—18: Ecuador (San Antonio Hills, Pichincha, 3; Páramo de Pichincha, 10; Corazón, 1; Cochaseca Range, 1; Pichincha, 1; unspecified, 1; Lloa Hills, Pichincha, 1).

***Nothoprocta curvirostris peruviana** Taczanowski.¹ PERUVIAN
TINAMOU.

¹*Nothoprocta curvirostris peruviana* Taczanowski: Very similar to the nominate race, but decidedly smaller (wing, 150-155 against 165-170 mm.), and coloration above paler with a lesser amount of black. There seems to be considerable individual variation in this form, and with the limited material available for study we have not been able to ascertain if it really differs in coloring from *curvirostris*. Conover found two adults from Chachapoyas to be lighter, more reddish brown above and more uniform as well as brighter fulvous below, with the barring on the two outer primaries nearly obsolete. Hellmayr failed to see any difference in the markings of the primaries or in the coloration of the under parts, but noticed that in two birds from Cajabamba and near Cajamarca, respectively, the blackish area of the dorsal feathers was less extensive, while the light-colored cross-bars were duller, less rufescent, when compared to Ecuadorian examples. A male from Chachapoyas, however, was indistinguishable from the latter.

Whatever its status may ultimately turn out to be, *N. c. peruviana*, at all events, is quite distinct from *N. p. oustaleti* (found in the same region) by much

Nothoprocta curvirostris peruviana Taczanowski, Orn. Pér., 3, p. 307 (in text), 1886—Cutervo, Peru (type, though not listed by Sztolcman and Domaniewski, doubtless in the Warsaw Museum).

Nothoprocta curvirostris (not of Sclater and Salvin) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 213—Cutervo; idem, l.c., 1882, p. 49—Chachapoyas (one downy chick); idem, Orn. Pér., 3, p. 306, 1886—Cutervo; Salvin, Nov. Zool., 2, p. 22, 1895—near Cajamarca, Peru; Salvadori, Cat. Bds. Brit. Mus., 27, p. 556, 1895—part, spec. d, e, Cajamarca and Cajabamba, Peru; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 243, 1930—mountains near Huánuco, Peru (crit.); Peters, Bds. World, 1, p. 25, 1931—part, Peru.

Range.—Temperate zone of northern Peru (Cutervo; Cajamarca; Cajabamba; mountains near Huánuco).

Conover Collection.—1: Peru (mountains near Huánuco, 1).

Genus NOTHURA Wagler¹

Nothura Wagler, Syst. Av., 1, fol. 19, 1827—type, by subs. design. (Gray, List Gen. Bds., p. 63, 1840), *Tinamus boraquira* Spix.

Nothurus Swainson, Nat. Hist. Class. Bds., 2, p. 345, 1837—emendation of *Nothura* Wagler.

Nothura maculosa peruviana Berlepsch and Stolzmann.² PERUVIAN NOTHURA.

Nothura maculosa peruviana Berlepsch and Stolzmann, Ornith., 13, p. 101, 1906—Santa Ana, Urubamba, Peru (type in coll. of Count Branicki,

slenderer tarsi; strongly cinnamonaceous under wing coverts; much darker, ochraceous-tawny to tawny under parts; tawny, black-and-white-spotted foreneck and chest (neutral gray spotted with buff without any black in *oustaleti*); secondaries on outer web bright tawny with black bars (not black barred with buff), etc.

Additional material examined.—Peru: Cajabamba (alt. 10,000 ft.), 1 (male); near Cajamarca (alt. 10,000 ft.), 1 (female); Chachapoyas (alt. 9,000 ft.), 3.

¹ Miranda-Ribeiro (Rev. Mus. Paul., 23, p. 702, pl. 2, 1938) has recently named *Nothura schreineri* from Minas Geraes (the type is evidently in the Museu Nacional, Rio de Janeiro). The author places it between *N. minor* and *N. spixi* (= *boraquira*). Its dimensions (wing, 143; tarsus, 47; bill, 20) would seem to exclude affinity to the former, however. From *boraquira* it is said to differ by ochraceous under parts, by having all remiges (instead of only the three or four external ones) barred with buff on the outer webs, and by having all the under wing coverts (not only the larger ones) barred with buff and dusky. As *boraquira* has all the remiges barred on the outer web, and the lesser (not the larger) under wing coverts banded with buff and dusky, the other alleged characters would seem not to be of specific value, so that *schreineri* is probably only a synonym of *boraquira*, whose type locality is supposed to be Minas Geraes.

² *Nothura maculosa peruviana* Berlepsch and Stolzmann: Nearest to *N. m. boliviana*, but bill larger and under parts on breast and middle of abdomen darker, ochraceous rather than deep buff. Size about the same. Wing, 126½, (female) 130–133; bill, 18–20.

Four specimens from the type locality (Santa Ana) examined by Hellmayr.

now in Warsaw Museum; cf. Sztolcman and Domaniewski, *Ann. Zool. Mus. Pol. Hist. Nat.*, 6, p. 97, 1927; Chapman, *Bull. U. S. Nat. Mus.*, 117, p. 44, 1921—Santa Ana; Peters, *Bds. World*, 1, p. 26, 1931 (range); Laubmann, *Verh. Orn. Ges. Bay.*, 20, pp. 280, 282, 1934—Santa Ana (crit.).

Range.—Southeastern Peru, in Dept. of Cuzco (only known from Santa Ana in the Urubamba Valley).

****Nothura maculosa agassizii* Bangs.¹ AGASSIZ'S NOTHURA.**

Nothura agassizii Bangs, *Proc. Biol. Soc. Wash.*, 23, p. 107, June 24, 1910—Moho, northern border of Lake Titicaca, Peru (type in Museum of Comparative Zoology, Cambridge, Mass.).

Nothoprocta branickii (not of Taczanowski) Allen, *Bull. Mus. Comp. Zool.*, 3, p. 55, 1876—no locality given [= Moho].

Nothura maculosa agassizii Bangs, *Bull. Mus. Comp. Zool.*, 70, p. 153, 1930 (type listed); Peters, *Bds. World*, 1, p. 26, 1931 (range); Laubmann, *Verh. Orn. Ges. Bay.*, 20, p. 280, 1934 (range).

Nothura maculosa boliviana (not *N. boliviana* Salvadori) Berlepsch and Stolzmann, *Ornis*, 13, p. 105, 130, 1906—San Gerónimo, Cuzco, and Puno, Lake Titicaca, Peru.

Range.—Extreme southeastern Peru, from the Cuzco region (where it is said to intergrade with the preceding race) and the Titicaca basin (Moho, Tirapata, Puno) south through western Bolivia at least to Lake Poopo (Callipampa).²

¹*Nothura maculosa agassizii* Bangs: Nearest to *N. m. boliviana*, but darker above with the pileum blacker and the black markings on the upper back more extensive, producing a blacker appearance of the dorsal surface; dark pectoral markings likewise blacker and wider, the lateral margins whiter, less buffy; lower breast and abdomen lighter, less buffy. While evidently separable from *boliviana* (as represented by specimens from Cuchacancha and Tiraque, Cochabamba), this form could not be compared with *N. m. peruviana*, which does not appear to exist in any American collection.

Eighteen specimens from the Titicaca basin examined by the junior author are fairly uniform and differ from *boliviana*, as stated above, by their darker coloration both above and below. According to Berlepsch and Stolzmann (*Ornis*, 13, p. 105, 1906), a specimen from the Cuzco region (San Gerónimo), in the color of the posterior under parts, is intermediate between *peruviana* and an example from Puno [= *agassizii*], but resembles the latter in whitish borders to the pectoral feathers.

Additional material examined.—Peru: Tirapata, Titicaca basin, 2; Lake Titicaca, 1; Puno, Lake Titicaca, 1; Capachica, 2.—Bolivia: Callipampa, Oruro, 3.

²As this Part goes to press Bond and de Schauensee (*Not. Nat. Acad. Nat. Sci. Phila.*, No. 93, p. 2, Oct. 14, 1941) have described *Nothura maculosa oruro* from Callipampa (alt. 12,200 ft.), Lake Poopo, Oruro, Bolivia (type in the Academy of Natural Sciences of Philadelphia). Through the kindness of the describers the junior author has been able to examine the type (a male) and the two females on which this form was based. There is great variation in these specimens but the male and the darkest female can be matched very closely by specimens in Field Museum from Puno, Peru. The second female is much grayer and approaches specimens of *boliviana* from Tiraque, Cochabamba, Bolivia.

Conover Collection.—12: Peru, Puno (Puno, 7; Chucuito, 1; Totorani, 3; Sorapa, 1).

****Nothura maculosa boliviana* Salvadori.¹ BOLIVIAN NOTHURA.**

Nothura boliviana Salvadori, Cat. Bds. Brit. Mus., 27, p. 561, 1895—Bolivia and Cinti [=Camargo] (cotypes from "Bolivia," in British Museum examined); Lönnberg, Ibis, 1903, p. 452—San Luis, Tarija, Bolivia.

Nothura media (not *Tinamus medius* Spix) Gray, List Spec. Bds. Brit. Mus., 5, p. 104, 1867—Bolivia.

Nothura marmorata (not of G. R. Gray) Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 642—Cinti, Bolivia (spec. examined).

Range.—Southern Bolivia, in depts. of Cochabamba, Chuquisaca, and Tarija.

Conover Collection.—10: Bolivia (Tiraque, Cochabamba, 3; Poja, Prov. Totorá, Cochabamba, 1; Vacas, Cochabamba, 2; Coloni, Cochabamba, 3; Tarija, 1).

****Nothura maculosa salvadorii* Hartert.² SALVADORI'S NOTHURA.**

Nothura salvadorii Hartert, in Hartert and Venturi, Nov. Zool., 16, p. 266, 1909—Arenal, Salta, Argentina (type in Tring Collection, now in the American Museum of Natural History, New York, examined).

Nothura maculosa (not *Tinamus maculosus* Temminck) Burmeister, Journ. Orn., 6, p. 161, 1858—Mendoza; Leybold, Excurs. Pampas Argent., pp. 54, 57, 62, 1873—near Las Chacayes and Vistaflora, Mendoza; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 218, 1902—environs of Tucumán; idem,

¹*Nothura maculosa boliviana* Salvadori: Not unlike *N. m. maculosa*, but on average smaller; upper parts much more tawny, with a lesser amount of black; lateral margins to feathers of foreneck and upper chest more decidedly rufescent; under parts paler, less ochraceous, and without trace of blackish cross-bands on the flanks. Wing, 124–132; bill, 16–18.

Birds from Tiraque, Cochabamba, agree perfectly with the cotypes except for having the white lateral edges to the interscapulars more pronounced, which is doubtless due to their being in fresher plumage.

Additional material examined.—Bolivia: Cinti [=Camargo], 1; unspecified, 2 (the cotypes); Cuchacancha, Cochabamba, 2; Tiraque, Cochabamba, 2.

²*Nothura maculosa salvadorii* Hartert: Similar to *N. m. boliviana*, but above less rufescent, the light vermiculations being mikado brown rather than rusty; the dusky markings on foreneck and chest narrower and more in the form of streaks (instead of blotches) and their lateral margins less rufescent; the flanks distinctly barred with black (practically immaculate in *boliviana*). Wing, 127, (female) 130–135; bill, 18–20.

We are unable to separate Mendoza skins (*mendozensis*) from those of Salta and Tucumán, although they possibly *average* slightly larger. Six birds from San Juan are noticeably lighter on the upper parts with the light vermiculations paler and more grayish under simultaneous reduction of the dark brown blotches. A single bird from the Sierra de Córdoba and another from northern Neuquén seem to verge in the direction of *N. m. nigroguttata*.

Additional material examined.—Argentina: Tala, Salta, 1; Arenal, Salta, 2; Rosario de Lerma, Salta, 3; Lavalle, Santiago del Estero, 3; near Tucumán City, Tucumán, 1; Angaco Sud, San Juan, 6; Cosquín, Sierra de Córdoba, 1; Mendoza, 4.

Rev. Letr. Cienc. Soc., 3, No. 13, p. 72, 1905—environs of Tucumán; Giacomelli, Anal. Soc. Cient. Arg., 63, p. 301, 1907—La Rioja; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 187, 1910—part, Córdoba and Tucumán; Giacomelli, El Hornero, 3, p. 82, 1923—La Rioja; Castellanos, l.c., 3, p. 199, 1923—Valle de los Reartes, Córdoba; idem, l.c., 4, p. 366, 1931—same locality.

Nothura marmorata (not of G. R. Gray) Schlegel, Mus. Pays-Bas, 8, Tinami, p. 44, 1880—"Bolivia," errore (spec. in Vienna Museum—said to be from "Chile?"—examined).

Nothura boraquira (not *Tinamus boraquira* Spix) Salvadori, Cat. Bds. Brit. Mus., 27, p. 561, 1895—Mendoza; idem, Boll. Mus. Zool. Torino, 12, No. 292, p. 36, 1897—Tala, Salta (crit.); Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Salta;¹ Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 187, 1910—Salta and Mendoza; Reed, Av. Prov. Mendoza, p. 6, 1916—Mendoza.

Nothura darwini mendozensis Chubb, Bull. Brit. Orn. Cl., 38, p. 31, Dec. 29, 1917—Mendoza (type in British Museum examined); Wetmore, Bull. U. S. Nat. Mus., 133, p. 39, 1926—Mendoza (Tunuyán) and Córdoba;² Pereyra, El Hornero, 4, p. 28, 1927—San Rafael, Mendoza; Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 150, 1935—Mendoza (San Rafael, Tupungato, Paramillo de Uspallata), San Luis, and (?) Neuquén.

Nothura maculosa salvadorii Dabbene, Bol. Soc. Physis, 1, p. 243, 1913—Tucumán; Laubmann, Verh. Orn. Ges. Bay., 20, p. 282, 1934—Tucumán.

Nothura darwini(i) salvadorii Chubb, Ibis, 1919, p. 13—El Carrizal, Sierra de Córdoba (crit.); Peters, Bds. World, 1, p. 27, 1931 (range).

Nothura darwini salvadori Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 151, 1935—Tucumán.

Nothura darwini (not of Gray) Salvadori, Cat. Bds. Brit. Mus., 27, p. 562, 1895—part, spec. f, Cosquin, Córdoba (spec. examined).

Range.—Western Argentina, from extreme southern Salta (Arenal, Tala) through Tucumán, Catamarca, western Santiago del Estero (Lavalle), La Rioja, and San Juan south to Mendoza, San Luis and northern Neuquén, and east to the Sierra de Córdoba.

Field Museum Collection.—1: Argentina (Tucumán, 1).

Conover Collection.—11: Argentina (Tapia, Tucumán, 1; Tunuyán, Mendoza, 8; Angaco Sud, San Juan, 1; Chos-Malal, Neuquén, 1.

**Nothura maculosa chacoensis* Conover.³ CHACO NOTHURA.

¹ A second specimen taken at Salta on the same day (Aug. 27, 1896) is referred by Bruch to *N. darwini*, which can hardly be correct.

² The sight records from General Roca, Rio Negro, and Victorica, Pampa, placed under the same species are, of course, open to doubt.

³ *Nothura maculosa chacoensis* Conover: Similar to *N. m. boliviana*, but upper parts without the tawny tone, the cross-markings on back and scapulars varying from tawny-olive to snuff brown, and the buffy white longitudinal streaks being laterally edged with grayish, the whole producing a grayish or brownish appear-

Nothura maculosa chacoensis Conover, Proc. Biol. Soc. Wash., 50, p. 227, Dec. 28, 1937—265 km. west of Puerto Casado, Paraguayan Chaco (type in Conover Collection, Field Museum of Natural History).

Nothura maculosa boliviiana (not *N. boliviiana* Salvadori) Peters, Bds. World, 1, p. 26, 1931—part, western Paraguayan Chaco.

Range.—Western Paraguayan Chaco.

Conover Collection.—18: Paraguay (265 km. west of Puerto Casado, 10; 195 km. west of Puerto Casado, 7; 120 km. west of Puerto Pinasco, 1).

Nothura maculosa darwinii G. R. Gray.¹ DARWIN'S NOTHURA.

Nothura darwinii(i) G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 104, 1867—Bahia Blanca, southern Buenos Aires (type in British Museum examined); Selater, Proc. Zool. Soc. Lond., 1872, p. 547—Rio Negro, Patagonia; Doering, in Roca, Inf. Of. Exp. Rio Negro, p. 58, 1881—Rio Colorado and Rio Negro; Selater and Hudson, Arg. Orn., 2, p. 213, pl. 20, 1889—Rio Negro (habits); Salvadori, Cat. Bds. Brit. Mus., 27, p. 562, pl. 19, 1895—part, spec. a-e, Bahia Blanca and Rio Negro; Scott and Sharpe, Rep. Princet. Univ. Exp. Patag., 2, Orn., p. 26, 1904—Patagonia; Hartert and Venturi, Nov. Zool., 16, p. 266, pl. 3, fig. 11 (egg), 1909—Santa Cruz, Patagonia (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 187, 1910—Patagonia (Chubut, Rio Negro) and Bahia Blanca (excl. of

ance above; under parts dingier buff, the suffusion on foreneck and upper chest wood brown or avellaneous rather than tawny, and the flanks broadly barred with black. Differs from typical *maculosa* by paler under parts with isabelline rather than ochraceous or tawny tinge on foreneck and chest; much more grayish upper parts, caused by the grayish brown instead of buffy brown lateral margins and much less tawny vermiculations; rather smaller size. From *N. m. salvadorii* it may be distinguished by more grayish dorsal surface and much deeper ochraceous buff under parts, with more heavily barred flanks and more sharply defined, blackish longitudinal streaks on foreneck and chest. Wing, 123–130; bill, 16–18.

¹*Nothura maculosa darwinii* G. R. Gray: Very close to *N. m. salvadorii*, but the dusky barring of the flanks still more reduced, and the narrower transverse bars of the dorsal feathers varying from grayish to pale brownish, never reddish. The paleness of the under parts as well as the general proportions are about the same. While agreeing with Laubmann that *darwinii* is a member of the *maculosa* complex, the connection between the eastern races and the Patagonian birds being formed by the truly intermediate *salvadorii*, we are convinced that it has no relationship whatever to *N. boraquira*, which occurs, in parts of its range, side by side with representatives of *N. maculosa*. The northern limit of the breeding range of *N. m. darwinii* remains to be determined. The type was obtained by Darwin in the sand dunes near Bahia Blanca, in southern Buenos Aires. This was probably an accidental occurrence, as no other example has ever been met with in that region, which appears to be tenanted by *N. m. nigroguttata*. Doering (1881, p. 58) reports having met with both *N. "maculosa"* [= *nigroguttata*] and *N. darwinii* along the Rio Colorado, while only the last-named was found on the Rio Negro. It is well to recall, however, that the type of *N. m. nigroguttata* was secured at Choele-Choele, on the Rio Negro. Therefore, it seems that at times the two races may be found together, probably outside the breeding season. More detailed information about the breeding area of *darwinii* is much desired.

Material examined.—Bahia Blanca, Buenos Aires, 1 (the type); Rio Negro, Patagonia, 6.

Bruch's Salta record); Hudson, *El Hornero*, 4, p. 180, 1928—Patagonia (habits); Marelli, *Mem. Min. Obr. Publ.* for 1922-23, p. 598, 1924—Bahia Blanca.

Nothura minor (not *Tinamus minor* Spix) Darwin, *Zool. Voy. Beagle*, 3, Birds, p. 119, 1841—Bahia Blanca, Buenos Aires.

Nothura maculosa (not *Tinamus maculosus* Temminck) Durnford, *Ibis*, 1877, p. 45—Chubut Valley; (?) Wetmore, *Univ. Calif. Pub. Zool.*, 24, p. 410, 1926—Valcheta, Rio Negro.

Nothura perdicaria (not *Crypturus perdicarius* Kittlitz) Durnford, *Ibis*, 1878, p. 405—valleys of the Chubut, Sengel, and Sengelen, Patagonia.

Nothura darwini darwini Marelli, *El Hornero*, 5, p. 193, 1933—Bahia Blanca, Buenos Aires; Steullet and Deautier, *Obr. Cinc. Mus. La Plata*, 1, p. 149, 1935—Vidma, Rio Negro.

Nothura darwini darwini Peters, *Bds. World*, 1, p. 27, 1931 (range).

Nothura maculosa darwini Laubmann, *Verh. Orn. Ges. Bay.*, 20, pp. 280, 282, 1934—Rio Negro (crit.).

Range.—Eastern Patagonia from the Rio Negro south to the Rio Santa Cruz; also found on the Rio Colorado; once secured (by Darwin) at Bahia Blanca, southern Buenos Aires.

****Nothura maculosa nigroguttata* Salvadori.¹ BLACK-SPOTTED NOTHURA.**

Nothura nigroguttata Salvadori, *Cat. Bds. Brit. Mus.*, 27, p. 560, 1895—"Central Pampas, Argentine Republic" (type, from Choele-Choel, Rio Negro,

¹*Nothura maculosa nigroguttata* Salvadori: Nearest to *N. m. maculosa*, and about the same size, but upper parts less blackish, with paler, buffy to fulvous brown instead of mikado brown cross-markings, and under parts more whitish, less buffy, with bolder, more blackish markings on foreneck and sides.

Birds from the plains of Córdoba, Buenos Aires Province, and Santa Fé, allowing the usual amount of individual variation, agree fairly well together, although those from Córdoba (Noetinger) tend to be somewhat grayer above and average lighter buff below. Two specimens from southern Neuquén (Collon Cura, 100 km. east of San Martín de los Andes) are even grayer above, with the lateral edgings whiter (less buffy), and the under parts are still paler, with the dark markings on chest and flanks less extensive. Six specimens from Chimpay, Rio Negro Territory, are lighter (yellowish) above when compared to Buenos Aires and Córdoba birds.

It is with considerable reluctance that we adopt Salvadori's term *nigroguttata* for the *Nothura* of the central plains of Argentina. The type came from Choele-Choel, on the Rio Negro, and it might be argued that it is much more likely to be the same as *N. m. darwini*, the type of which was obtained by Darwin at Bahia Blanca, near the southern border of Buenos Aires Province. Yet Salvadori, who doubtless compared the two types directly, keeps them separate. On hasty examination and with only two specimens of the form here named *nigroguttata* for comparison, Hellmayr found Darwin's typical example, which is, however, not in very good condition, to be very similar to, if not identical with, the skins obtained by H. W. Hudson on the Rio Negro. As observed under *N. m. darwini*, the breeding ranges of *darwini* and *nigroguttata* require further study. The re-examination of the type of *N. nigroguttata* seems likewise imperative.

Additional material examined.—Argentina, Santa Fé: Estancia Ines, near Hersilia, 2; Estancia Wildermuth, 1; La Geraldina, 1; Galvez, 1; Est. La Germania, 3; Mocoví, 1.

in collection of Count Branicki, now in Warsaw Museum; cf. Sztolcman and Domaniewski, *Ann. Zool. Mus. Pol. Hist. Nat.*, 6, p. 98, 1927).

Nothura major (not *Tinamus major* Spix) Darwin, *Zool. Voy. Beagle*, 3, Birds, p. 119, 1841—"north shores of the La Plata" [=Maldonado, Uruguay].

Nothura maculosa (not *Tinamus maculosus* Temminck) Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1868, p. 143—Conchitas, Buenos Aires; Sternberg, *Journ. Orn.*, 17, p. 274, 1869—Buenos Aires (habits); Durnford, *Ibis*, 1876, p. 165—Buenos Aires; idem, *Ibis*, 1877, p. 203—Buenos Aires; Gibson, *Ibis*, 1880, p. 168—Cape San Antonio, Buenos Aires (eggs descr.); Doering, in Roca, *Inf. Ofic. Exp. Rio Negro, Zool.*, p. 58, 1881—pampas south to the vicinity of the Rio Colorado; Holmberg, *Act. Acad. Cienc. Córdoba*, 5, p. 86, 1884—Tandil, Buenos Aires; Barrows, *Auk*, 1, p. 38, 1884—part, Bahia Blanca, Buenos Aires (eggs descr.); Withington, *Ibis*, 1888, p. 473—Lomas de Zamora, Buenos Aires; Sclater and Hudson, *Arg. Orn.*, 2, p. 211, 1889—pampas south to the Rio Negro (habits); Frenzel, *Journ. Orn.*, 39, p. 124, 1891—pampas of Córdoba; Holland, *Ibis*, 1892, p. 214—Estancia Espartillar, Buenos Aires; Salvadori, *Cat. Bds. Brit. Mus.*, 27, p. 559, 1895—part, Buenos Aires; Scott and Sharpe, *Rep. Princet. Univ. Exp. Patag.*, 2, *Orn.*, p. 20, 1904—Buenos Aires and San Luis; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 187, 1910—part, Buenos Aires (to the Rio Colorado), Chaco, and Córdoba; Grant, *Ibis*, 1911, p. 478—part, Cape San Antonio and Los Yngleses, Ajó, Buenos Aires; idem, *Ibis*, 1912, p. 274 (plumages); Chubb, *Ibis*, 1919, p. 13—Papín, Bonifacio, Buenos Aires; Gibson, *Ibis*, 1920, p. 90—Cape San Antonio, Buenos Aires; Tremoleras, *El Hornero*, 2, p. 11, 1920—Uruguay (Montevideo, Canelones, San José, Flores, Maldonado, Minas, Colonia, Florida, Durazno, Treinta y Tres, Cerro Largo, Rocha); Renard, *l.c.*, 2, p. 58, 1920—Cañuelas, Buenos Aires; Daguerre, *l.c.*, 2, p. 260, 1922—Rosas, Buenos Aires; Pereyra, *l.c.*, 3, p. 161, 1923—Zelaya, Buenos Aires; Ménégau, *Rev. Franc. d'Orn.*, 1925, p. 223—Icaño, Santiago del Estero; Wilson, *El Hornero*, 3, p. 350, 1926—Venado Tuerto, Santa Fé; Pozzi, *l.c.*, 4, p. 66, 1927—Ajó, Buenos Aires (habits).

Nothura maculosa nigroguttata Hartert and Venturi, *Nov. Zool.*, 16, p. 266, 1909—part, Santa Fé (Mocoví) and Buenos Aires (Barracas al Sud); Marelli, *Mem. Min. Obr. Públ. for 1922-23*, p. 597, 1924—Prov. Buenos Aires; Dabbene, *El Hornero*, 3, p. 101, 1923 (range, habits); Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 33, 1926—Buenos Aires (Dolores to Lavalle, Carhué, Guaminí) and Corrientes (crit.); Peters, *Bds. World*, 1, p. 27, 1931 (range); Laubmann, *Verh. Orn. Ges. Bay.*, 20, pp. 275, 280, 282, 1934—Santa Fé (Est. La Germania, Wildermuth, Gálvez, near Hersilia) (crit.); Steullet and Deautier, *Obr. Cinc. Mus. La Plata*, 1, p. 147, 1935—part, Buenos Aires (Pigüé, Cristiano Muerto, La Plata, Bahia de San Blas).

Nothura nigriguttata Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 187, 1910—central pampas.

Nothura maculosa maculosa Marelli, *El Hornero*, 5, p. 193, 1933—Sierra de la Ventana and Saldungaray, Buenos Aires.

Nothura darwini salvadorii (not *Nothura salvadorii* Hartert) Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 74, 1930—part, Est. La Germania and Est. Wildermuth, Santa Fé.

Range.—Central Pampa region of Argentina, from southern Santiago del Estero and the Chaco Santafecino south through the plains of Córdoba and Buenos Aires to the Rio Negro, east to the Rio Paraná; (?)accidental at Mendoza.¹

Field Museum Collection.—1: Argentina (Henderson, Buenos Aires, 1).

Conover Collection.—33: Argentina (Papín, Bonifacio, Buenos Aires, 3; Los Ingleses, Buenos Aires, 1; Cambacérès, Buenos Aires, 3; Torrecito, Buenos Aires, 1; Alvarez Yonte, Buenos Aires, 2; Dorrego, Buenos Aires, 5; Noetinger, Córdoba, 9; Mendoza, 1; Collon Cura, Neuquén, 2; Chimpay, Rio Negro, 6).

****Nothura maculosa maculosa* (Temminck). SPOTTED NOTHURA.**

Tinamus maculosus Temminck, Hist. Nat. Fig. Gall., 3, pp. 557, 748, 1815—based on "Ynambúi" Azara, No. 327, Paraguay,² and two specimens (of unrecorded locality) in the Paris Museum (type locality restricted to Bernalcué, near Asunción, Paraguay; cf. Laubmann, Verh. Orn. Ges. Bay., 20, p. 273, 1934); Wied, Reise Bras., 1, p. 116 (8vo ed., p. 114), 1820—plains of Goaytacases, Rio de Janeiro; idem, Beitr. Naturg. Bras., 4, (2), p. 519, 1833 plains of Goaytacases [=Campos], especially near the Rio Barganza, not far from the Lagõa Feia, Rio de Janeiro.

Cryptura fasciata Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 109, 1819—based on "Ynambúi" Azara, No. 327; Paraguay.

Crypturus maculosus Lichtenstein, Verz. Doubl. Berliner Mus., p. 68, 1823—São Paulo.

Nothura major (not *Tinamus major* Spix) Pelzeln, Orn. Bras., 3, p. 295, 1870—São Paulo (Ypanemá, Cimiterio [do Lambari], Pederneiras, Itararé) and Paraná (Jaguaraiaba).

Nothura maculosa Doering, Period. Zool. Arg., 1, p. 255, 1874—Barrancas, Rio Guayquiraro, Corrientes; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 42, 1880—São Paulo; Dalgleish, Proc. Roy. Phys. Soc. Edin., 6, p. 249, pl. 8, fig. 4 (egg), 1881—Estancia Tala, Prov. Durazno, Uruguay; White, Proc. Zool. Soc. Lond., 1882, p. 629—Concepción, Misiones; Barrows,

¹ An adult male from Mendoza (alt. 800 meters), May, 1911, in the Munich Museum (No. 14.113), mentioned by Laubmann (Verh. Orn. Ges. Bay., 20, pp. 280, 282, 1934), s. n. *N. m. mendozensis*, and a female in the Conover Collection, are very different from other specimens taken at Mendoza, and cannot be separated from various individuals of *nigroguttata*. Unless there is some confusion about the locality of the skins received from a dealer, they must be accidental occurrences.

² Azara comprised under his "Ynambúi" the present form as well as *N. m. nigroguttata*, as results from the assigned range stated to extend from Paraguay to Buenos Aires and to Montevideo. Laubmann has restricted the type locality to southern Paraguay, where the dark-backed form is known to occur.

- Auk, 1, p. 38, 1884—part, Concepción del Uruguay, Entre Ríos; Gibson, Ibis, 1885, p. 282—Paysandú, Uruguay (nesting); Berlepsch, Journ. Orn., 35, p. 37, 1887—Rio Pilcomayo, Paraguay; Aplin, Ibis, 1894, p. 214—Santa Elena, Soriano, Uruguay (nesting); Salvadori, Cat. Bds. Brit. Mus., 27, p. 559, 1895—part, Uruguay (Maldonado, Montevideo) and São Paulo (Ypanemá); Ihering, Anuario Est. Rio Grande do Sul, 16, p. 153, 1899—Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 463, 1899—São Paulo; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 706, 1906—Paraguay (Bernalcué), Entre Ríos (La Soledad), and São Paulo (Victoria, Itararé, Cemeterio [do Lambari], Ypanemá); Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, pp. 172, 173, 1906—Campos Itatiaya, Rio de Janeiro; Ihering, Cat. Faun. Braz., 1, p. 9, 1907—Ypiranga and Franca, São Paulo; Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 337, 1909—Sierra do Itatiaya; Chubb, Ibis, 1910, p. 58—Sapucay, Paraguay (nesting); Grant, Ibis, 1911, p. 478—part, spec. k, Monte Alto, Paraguayan Chaco; Bertoni, Anal. Soc. Cient. Arg., 75, p. 68, 1913—Misiones; idem, Faun. Parag., p. 35, 1914—Paraguay; Marelli, El Hornero, 1, p. 75, 1918—Curuzú-Cuatí, Corrientes; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Montevideo, Canelones, San José, Flores, Maldonado, Minas, Colonia, Florida, Durazno, Treinta y Tres, Cerro Largo, Rocha); Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 253, 1923—Retiro do Ramos, Itatiaya.
- Nothura maculosa nigroguttata* (not of Salvadori) Hartert and Venturi, Nov. Zool., 16, p. 266, 1909—part, Entre Ríos (La Soledad); Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 147, 1935—part, Chaco (Quitilipi, Margarita Belen) and Entre Ríos (Colonia Protestante, Diamante; Concepción del Uruguay).
- Nothura maculosa savannarum* Wetmore, Journ. Wash. Acad. Sci., 11, p. 435, Nov. 4, 1921—San Vicente, Rocha, Uruguay (type in U. S. National Museum examined); idem, Bull. U. S. Nat. Mus., 133, p. 35, 1926—San Vicente, Uruguay; Laubmann, Verh. Orn. Ges. Bay., 20, pp. 279, 281, 1934—Porto Alegre, Rio Grande do Sul (crit.).
- Nothura maculosa boliviana* (not *N. boliviana* Salvadori) Wetmore, Bull. U. S. Nat. Mus., 133, p. 36, 1926—Chaco (Las Palmas), Formosa (Riachó Pilaga), and Paraguay (west of Puerto Pinasco) (crit.); Peters, Bds. World, 1, p. 26, 1931—Argentine Chaco; Laubmann, Verh. Orn. Ges. Bay., 20, pp. 279, 280, 282, 1934—northern Paraguay (San Luis de la Sierra, Apa Hills; Colonia Nueva Germania; Puerto Casado) and Formosa (San José, Tacaaglé, Lapango) (crit.); Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 146, 1935—Chaco and Formosa.
- Nothura maculosa maculosa* Friedmann, Bull. Mus. Comp. Zool., 68, p. 142, 1927—Santa Elena, Entre Ríos; Holt, Bull. Amer. Mus. N. H., 57, p. 279, 1928—campos of Itatiaya; Peters, Bds. World, 1, p. 27, 1931—Paraguay, Misiones, and southern Brazil; Laubmann, Verh. Orn. Ges. Bay., 20, p. 281, 1934—part, Paraguay (Bernalcué), São Paulo, and Rio de Janeiro; Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 145, 1935—Misiones.

Nothura darwini salvadorii (not *N. salvadorii* Hartert) Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 74, 1930—part, Formosa (San José, Tacaaglé, Lapango).

Range.—Southern Brazil, from Rio de Janeiro (Campos) and southern Matto Grosso (Vaccaria) south to Rio Grande do Sul; Uruguay; Paraguay (Apa Hills, Cerro Amambay, Bernalcué, Villa Rica, Sapucay, etc.); eastern Paraguayan Chaco (Puerto Pinasco, Fort Wheeler, Riacho Negro, etc.); and northeastern Argentina (in Corrientes, Entre Ríos, Misiones, Formosa and the Chaco).¹

Field Museum Collection.—8: Brazil (Fazenda Capão Bonita, Vaccaria, Matto Grosso, 3); Paraguay (Villa Rica, 2); Uruguay (San Vicente, Rocha, 3).

Conover Collection.—38: Brazil (Fazenda Capão Bonita, Vaccaria, Matto Grosso, 6); Paraguay (Capitan Bado, Cerro Amambay, 6; Villa Rica, 13; Horqueta, 6); Argentina (Santa Ana, Misiones, 3); Uruguay (Mercedes, Soriano, 4).

**Nothura maculosa major* (Spix).² SPIX'S NOTHURA.

¹ Birds from southern Brazil and Misiones are identical with those from southern Paraguay. Their characters are the large extent of the black area occupying the greater part of the dorsal and uropygial feathers; the rufescent (mikado brown) barring above; the ochraceous buff under parts and the comparatively restricted dusky spotting on the foreneck. Specimens from west of the Paraguay and Parana rivers, however, are not quite typical, having the upper parts blacker, less rufescent, but seem better referred here than to any other race. We are unable to recognize *N. m. savannarum* as distinct. The type and another example from San Vicente have the light edgings to the dorsal plumage broader and whiter and the dark centers less marked with light vermiculations, while the under parts are paler with the dark spotting on the chest smaller, darker, more sharply defined, and more rounded; also the barring on the flanks is more reduced. However, another adult from the same locality is darker, more like certain *nigroguttata* from Buenos Aires, and a fourth is just as dark and rufescent as *maculosa* from Villa Rica. Birds from western Uruguay (Soriano and Paysandú) cannot satisfactorily be separated from Sapucay and Villa Rica specimens, although some again approach *nigroguttata*, and the same remark applies to the inhabitants of Entre Ríos. All that can be said is that birds from Uruguay and Entre Ríos are more or less intermediate, but do not possess any character of their own.

Additional material examined.—Brazil: Campos, Rio de Janeiro, 1; Jaguaíba, Paraná, 1; Cemiterio do Lambari, São Paulo, 1; Pederneiras, São Paulo, 1; Victoria, São Paulo, 1; Itararé, São Paulo, 2; Ypanemá, São Paulo, 4; Pedras Brancas, Rio Grande do Sul, 1.—Argentina: Santa Ana, Misiones, 1; La Soledad, Entre Ríos, 4; Kilometer 182, Formosa, 2; San José, Formosa, 1; Lapango, Formosa, 1; Riacho Pilaga, Formosa, 2; Las Palmas, Chaco, 1; General Pinedo, Chaco, 2.—Uruguay: San Vicente, Rocha, 1; Santa Elena, Soriano, 1; Maldonado, 1; Montevideo, 1; Paysandú, 2.—Paraguay: San Luis de la Sierra, Apa Hills, 3; Nueva Germania, 1; Bernalcué, near Asunción, 2; Sapucay, 1; Villa Rica, 3; Rosario, 5; Horqueta, 6; Capitan Bado, Cerro Amambay, 6; 40 km. west-southwest of Capitan Bado, Cerro Amambay, 3; Riacho Negro, Chaco, 2; Puerto Pinasco, Chaco, 3; Fort Wheeler, Chaco, 1; Puerto Casado, Chaco, 1; Monte Alto, Chaco, 1.

² *Nothura maculosa major* (Spix): Closely similar to *N. m. maculosa*, but less blackish above, the rufous barring predominating over the black; upper wing

Tinamus major Spix, Av. Spec. Nov. Bras., 2, p. 64, pl. 80, 1825—"in campis Minas Geraes, prope pagum Tejuco [=Diamantina] et Contendas," Brazil (descr. of adult; type in Munich Museum examined).

Tinamus medius Spix, Av. Spec. Nov. Bras., 2, p. 65, pl. 81, 1825—"in campis prope pagum Tejuco" [=Diamantina], Minas Geraes, Brazil (descr. of immature; type in Munich Museum examined).

Nothura maculosa (not *Tinamus maculosus* Temminck) Burmeister, Syst. Uebers. Th. Bras., 3, p. 330, 1856—Congonhas, Minas Geraes; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 51—Lagõa Santa, Curvelo, and Pindeibas, Minas Geraes; Salvadori, Cat. Bds. Brit. Mus., 27, p. 559, 1895 (in part); Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 706, 1906—part, Minas Geraes (notes on Spix's types); Ihering, Cat. Faun. Braz., 1, p. 9, 1907—part, Minas Geraes and "Bahia"; Hellmayr, Nov. Zool., 15, p. 100, 1908—Agua Suja, Minas Geraes.

Nothura maculosa maculosa Laubmann, Verh. Orn. Ges. Bay., 20, pp. 279, 281, 1934—part, Minas Geraes (Tejuco, Agua Suja, Pocos de Caldas); Pinto, Rev. Mus. Paul., 20, p. 30, 1936—Fazenda Bõa Vista, Jaraguá, Goyáz.

Range.—Interior of Brazil, in states of Goyáz (Jaraguá, Veadeiros), Minas Geraes (Diamantina, Contendas, Pocos de Caldas, Lagõa Santa, Curvelo, Pindeibas, Agua Suja), and probably the adjoining section of Bahia.

Conover Collection.—2: Brazil (Veadeiros, Goyáz, 2).

Nothura maculosa cearensis Naumburg.¹ CEARÁ NOTHURA.

Nothura maculosa cearensis Naumburg, Amer. Mus. Nov., 554, p. 1, Aug. 22, 1932—Lavras, Ceará, Brazil (type in the American Museum of Natural History, New York, examined).

Range.—Northeastern Brazil, in State of Ceará (Lavras).

coverts on average lighter ochraceous; under parts likewise somewhat paler, with the dusky markings on foreneck narrower (forming streaks rather than spots) and the bars on the flanks more reduced. Wing, 126–134, (female) 140; bill, 18½–20.

Seven specimens from western Minas Geraes and Goyáz seem to indicate that, in spite of Hellmayr's former statement, *T. major* may be kept separate. The birds vary somewhat in the coloration of the upper parts, two individuals, one each from Agua Suja and Veadeiros, being decidedly more grayish than the others, and much like *N. m. nigroguttata* on the dorsal surface. The reduced dusky spotting on the foreneck leads to the little-known Ceará race.

Additional material examined.—Minas Geraes: Diamantina, 2; Agua Suja, near Bagagem, 4; Pocos de Caldas, 1.

¹ *Nothura maculosa cearensis* Naumburg: Much like *N. m. boliviana*, but wings considerably shorter; light bars on back somewhat paler rufescent; upper wing coverts paler ochraceous; dusky markings on foreneck reduced to narrow streaks. Wing (male), 114; bill, 18.

Although direct comparison of the unique type with Minas specimens was not possible, this race is probably even more nearly related to *N. m. major*, but appears to differ by much shorter wings and even greater reduction of dusky streaking on foreneck. Much more material of *N. m. cearensis* and *N. m. major* than exists in collections is required to establish their proper status, but for the present they may be provisionally admitted.

***Nothura minor (Spix).¹ LEAST NOTHURA.**

Tinamus minor Spix, Av. Spec. Nov. Bras., 2, p. 65, pl. 82, 1825—"in campis prope pagum Tejuco" [=Diamantina], Minas Geraes, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 707, 1906).

Nothura assimilis G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 105, 1867—"South America" (type in British Museum examined).

Nothura minor Wagler, Syst. Av., 1, fol. 19, *Nothura*, sp. 4, 1827 Tejuco (descr. of type, crit.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 331, 1856 (ex Spix); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 52—Lagõa Santa, Minas Geraes; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 707, 1906—Itararé, Irisanga, and Itatinga, São Paulo (descr., var., meas.); Ihering, Cat. Faun. Braz., 1, p. 9, 1907—São Paulo, Minas Geraes, Matto Grosso, and "Bahia"; Naumburg, Bull. Amer. Mus. N. H., 60, p. 61, 1930—Chapada, Matto Grosso (range); Peters, Bds. World, 1, p. 27, 1931 (range); Laubmann, Verh. Orn. Ges. Bay., 20, p. 282, 1934—Minas Geraes (Tejuco; Agua Suja).

Nothura media (not *Tinamus medius* Spix) *et minor* Schlegel, Mus. Pays-Bas, 8, Tinami, p. 45, 1880—southern Brazil (descr.).

Nothura media Pelzeln, Orn. Bras., 3, p. 295, 1870—São Paulo (Fazenda do Rio Verde, Itararé, Irisanga); Allen, Bull. Amer. Mus. N. H., 5, p. 152, 1893—Chapada, Matto Grosso; Salvadori, Cat. Bds. Brit. Mus., 27, p. 563, 1895—Itararé and Chapada (spec. examined); Ihering, Rev. Mus. Paul., 3, p. 463, 1899—São Paulo.

Range.—Southern Brazil, in states of Minas Geraes (Diamantina; Lagõa Santa; Agua Suja, near Bagagem), São Paulo (Itatinga, Itapetininga, Itararé, Irisanga), and Matto Grosso (Chapada).²

Conover Collection.—1: Brazil (Itapetininga, São Paulo, 1).

***Nothura boraquira (Spix).³ MARBLED NOTHURA.**

¹*Nothura minor* (Spix), a very distinct species, differs from *N. m. maculosa*, which is found in the same parts of Brazil, by much smaller size; much slenderer, though not always shorter bill; deeper and more tawny-ochraceous under parts with much more narrowly barred flanks; more rufescent as well as more closely barred upper wing coverts; and by having the upper surface bright chestnut-rufous vermiculated with black, whereas in the allied species these parts are black with widely separated transverse bands of ochraceous brown or dull rufescent. Wing, 108–118; bill, 16–18.

The senior author has examined a good series of this rare tinamou in European collections.

Additional material examined.—Minas Geraes: Tejuco, 1 (the type); Agua Suja, near Bagagem, 2.—São Paulo: Itararé, 5; Irisanga, 1; Itatinga, 1.—Matto Grosso: Chapada, 2.—Brazil: unspecified, 1.

² No record exists from Bahia, which was included by Ihering in its range.

³*Nothura boraquira* (Spix), aside from its white throat and posterior under parts and wood brown to cinnamon-drab chest, is immediately distinguished from the *N. maculosa* complex by the immaculate dusky inner webs of the remiges and the buff-and-dusky-barred under wing coverts.

Birds from Bolivia (*marmorata*) are not separable, though they average slightly paler above. This divergency is, however, completely bridged by the individual

Tinamus boraquira Spix, Av. Spec. Nov. Bras., 2, p. 63, pl. 79, 1825—"in campis petrosis districtus adamantini"—Minas Geraes, Brazil¹ (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 705, 1906).

Nothura boraquira Wagler, Syst. Av., 1, fol. 19, *Nothura*, sp. 1, 1827—Brazil (descr. of type); Burmeister, Syst. Uebers. Th. Bras., 3, p. 329, 1856—campos between Bahia and Pernambuco south to "northern Minas Geraes" (ex Spix); Pelzeln, Orn. Bras., 3, p. 295 (note 1), 1870—Brazil; Schlegel, Mus. Pays-Bas, 8, Tinami, p. 44 (note 1), 1880—Brazil (crit.); Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 705, 1906—Lamarão, Bahia (descr., crit.); Ihering, Cat. Faun. Braz., 1, p. 10, 1907—Parnaguá, Piahy; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 98, 1910—Bahia (Fazenda da Serra and Bãa Vista, Rio Grande; opposite Cantinho, Lagõa Boca da Catinga de Cima, and Santa Rita, Rio Preto); idem, l.c., p. 248, 1924—Bahia and Piahy (Parnaguá, Pedrinha, Burity, Rio Fundú, Caitetú); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 478, 1929—Quixada and Juá, near Iguatú, Ceará; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 72, 1930—La Crencencia, Santa Cruz, Bolivia (crit.); Peters, Bds. World, 1, p. 27, 1931 (range); Laubmann, Verh. Orn. Ges. Bay., 20, pp. 281, 282, 1934—Puerto Casado, Paraguayan Chaco; Brodkorb, Proc. Biol. Soc. Wash., 50, p. 33, 1937—west of Puerto Casado, Paraguayan Chaco.

Nothura marmorata G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 104, 1867—Bolivia (cotypes in British Museum examined); Salvadori, Cat. Bds. Brit. Mus., 27, p. 561, pl. 18, 1895—Bolivia.

Nothura spixi Miranda-Ribeiro, Rev. Mus. Paul., 23, p. 704, pls. 3 and 4a, 1938—new name for *Tinamus boraquira* Spix on grounds of purism.

Range.—Northeastern Brazil, from Piahy and Ceará south to Bahia; also in eastern Bolivia (Dept. Santa Cruz) and the adjacent districts of the Paraguayan Chaco (west of Puerto Casado).

Field Museum Collection.—1: Brazil (Quixada, Ceará, 1).

Conover Collection.—19: Brazil (Juá, near Iguatú, Ceará, 1); Bolivia (Buenavista, Santa Cruz, 7; Santa Cruz, 2); Paraguay (265 km. west of Puerto Casado, Chaco, 7; 120 km. west of Puerto Pinasco, 2).

variation observable in a series of Brazilian specimens. Paraguayan specimens are slightly more grayish above, and more extensively buffy below, with the dark markings on chest and foreneck more prominent. The scutellation of the tarsus, in this species, does not differ from the other members of the genus, as has been correctly pointed out by Laubmann.

Additional material examined.—Brazil, Bahia: Lamarão, 2; Fazenda da Serra, Rio Grande, 1; Bãa Vista, Rio Grande, 1; Lagõa Boca da Catinga de Cima, Rio Preto, 1; Santa Rita, Rio Preto, 1; unspecified, 2.—Bolivia: La Crencencia, Santa Cruz, 1; unspecified, 2.—Paraguay: Colonia Friedrichsruh, Puerto Casado, Chaco, 1.

¹ The locality is probably erroneous, the occurrence in Minas Geraes being denied by Reinhardt (Vidensk. Medd. Naturhist. Foren., 1870, p. 51), and it is quite possible that the type actually came from Bahia or Piahy. Errors of this kind are not infrequent in Spix's work.

Genus *TAONISCUS* Gloger

Taoniscus Gloger, Gemeinn. Hand- und Hilfsb., 1, Part 6, p. 404, 1842—type, by monotypy, *Taoniscus pavoninus* Gloger=*Tinamus nanus* Temminck.

Pavuncula Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 881, 1856—type, by monotypy, *Tinamus nanus* Temminck.

**Taoniscus nanus* (Temminck). DWARF TINAMOU.

Tinamus nanus Temminck, Hist. Nat. Fig. Gall., 3, pp. 600, 753, 1815—based on "Ynambú-carapé" Azara, No. 328, Misiones; idem, Nouv. Rec. Pl. Col., livr. 53, pl. 316, 1824—São Paulo, Brazil (spec. in Paris Museum).

Nothura nana Wagler, Syst. Av., 1, fol. 19, sp. 5, 1827—"Paraguay" [=Misiones] and Brazil (descr.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 331, 1856—São Paulo and "Paraguay"; Pelzeln, Orn. Bras., 3, p. 295, 1870—Paraná (Fazenda do [Coronel Luciano] Carneiro, Jaguaraiaba) and São Paulo (Itararé, Irisanga); Schlegel, Mus. Pays-Bas, 8, Tinami, p. 46 (note 1), 1880—Franca, São Paulo.

Taoniscus pavoninus Gloger, Gemeinn. Hand- und Hilfsb., 1, Part 6, p. 404, 1842—based on "Ynambú-carapé" Azara, No. 328.

Taoniscus nanus Salvadori, Cat. Bds. Brit. Mus., 27, p. 564, 1895—Itararé, Brazil; Anon., Ibis, 1901, p. 744—Argentina; Ihering, Rev. Mus. Paul., 3, p. 464, 1899—São Paulo; idem, Cat. Faun. Braz., 1, p. 10, 1907—São Paulo; Peters, Bds. World, 1, p. 28, 1931 (range); Pinto, Rev. Mus. Paul., 22, p. 14, 1937—Bartyra, São Paulo.

Range.—Southeastern Brazil, in states of São Paulo (Franca, Irisanga, Itararé, Itapetininga, Bartyra) and Paraná (Faz. do Coronel Carneiro [=Bôa Vista], Rio Jaguaraiaba), and in the Argentine Territory of Misiones.¹

Conover Collection.—1: Brazil (Itapetininga, São Paulo, 1).

Genus *EUDROMIA* Is. Geoffroy

Eudromia Is. Geoffroy, Mag. Zool., 2, cl. 2, text to pl. 1, p. [1], 1832—type, by monotypy, *Eudromia elegans* Is. Geoffroy.

Calodromas Sclater and Salvin, Nomencl. Av. Neotrop., pp. 153, 156, 1873—new name for *Eudromia* Is. Geoffroy (believed to be preoccupied by *Eudromias* Boie, 1832).

Calopezus Ridgway, Proc. Biol. Soc. Wash., 2, p. 97, 1884—new name for *Calodromas* Sclater and Salvin (believed to be preoccupied by *Calodromus* Guérin, 1832).

¹ The above appear to be the only exact localities whence this dwarf tinamou, one of the rarest neotropical birds, has been secured. "Minas Geraes"—included by certain authors in its range—goes back to Salvadori, who erroneously believed Itararé to be in that state. Burmeister's supposition (Journ. Orn., 6, p. 161, 1858) that *Nothura nana* might ultimately be found to occur in the vicinity of Mendoza has not been confirmed.

Additional specimens examined.—Brazil: Franca, São Paulo, 2; Itararé, São Paulo, 3; Irisanga, São Paulo, 1; Rio Jaguaraiaba, Paraná, 1.

***Eudromia mira** Brodkorb.¹ BRODKORB'S MARTINETA.

Eudromia mira Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 382, p. 1, June 20, 1938—120 km. west of Puerto Pinasco, Paraguay (type in Museum of Zoology, University of Michigan, Ann Arbor).

Range.—Northern Chaco of Paraguay (120 km. west of Puerto Pinasco; 200 km. west of Puerto Casado).

Field Museum Collection.—1: Paraguay (Orloff, 120 miles west of Puerto Casado, 1).

Conover Collection.—2: Paraguay (120 km. west of Puerto Casado, 1; 240 km. west of Puerto Casado, 1).

***Eudromia elegans elegans** Is. Geoffroy. ELEGANT MARTINETA.

Eudromia elegans ("d'Orbigny and Is. Geoffroy") Is. Geoffroy, Mag. Zool., 2, cl. 2, pl. 1, and text, p. [3], 1832—between 38° and 46° south lat., in eastern Argentina (the type, preserved in the Paris Museum, was obtained at Bahía de San Blas, southern Buenos Aires; cf. d'Orbigny, Voy. Amér. Mérid., 2, p. 68, 1839 [or later]); d'Orbigny, Voy. Amér. Mérid., 2, pp. 68, 302, 1839 [or later]—Bahía de San Blas and Carmen de Patagones, Buenos Aires; Lafresnaye, Rev. Zool., 8, p. 87, 1845—Argentina (ex d'Orbigny); Hartlaub, Syst. Ind. Azara, p. 21, 1847—pampas of Buenos Aires (ex Azara's "Perdiz martineta"); Hudson and Selater, Proc. Zool. Soc. Lond., 1872, pp. 545, 549—Buenos Aires plains, Rio Negro, and south of the Rio Colorado (habits); Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 58, 1881—Salinas Chicas, Rio Negro, and Rio Colorado; C. Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 318, 1889—Valcheta (Rio Negro) and Chubut.

Calodromas elegans Selater and Salvin, Nomencl. Av. Neotrop., p. 153, 1873—Argentina (in part); Durnford, Ibis, 1877, p. 45—Chubut Valley; idem, Ibis, 1878, p. 406—Chubut; Barrows, Auk, 1, p. 317, 1884—Bahía Blanca, Buenos Aires; Selater and Hudson, Arg. Orn., 2, p. 214, 1889—part, northern Patagonia (habits); Aplin, Ibis, 1894, p. 213 (not found in Uruguay).

Calopezus elegans Salvadori, Cat. Bds. Brit. Mus., 27, p. 566, 1895—part, spec. i, Rio Negro; Scott and Sharpe, Rep. Princet. Univ. Exp. Patag., 2, Orn., p. 28, 1904—Bahía Blanca, Buenos Aires, and Colhué Huapi, Chubut; Hartert and Venturi, Nov. Zool., 16, p. 267, 1909—part, Buenos Aires (Bahía Blanca, Coronel Dorrego) and Chubut (Colhué Huapi); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 188, 1910—part, Chubut,

¹ *Eudromia mira* Brodkorb appears to be specifically distinct from *E. elegans*, from which it differs in shorter, narrower crest-feathers, which are hardly wider at the base than at a short distance from the tip instead of being distinctly tapered; decidedly drab, not gray, general coloration of the upper parts with dark brown mottling and barring without the roundish buffy white spots found in *elegans*; drab instead of gray foreneck and chest with sagittate dusky markings without any cross-barring; nearly unbarred inner webs of the primaries, only the extreme bases being slightly mottled with buffy; pale bluish instead of white feet, etc.

Additional material examined.—Paraguayan Chaco: 120 km. west of Puerto Pinasco, 2; 195 km. west of Puerto Casado, 1.

Rio Negro, and Buenos Aires; Daguerre, *El Hornero*, 2, p. 260, 1922—Rosas, Prov. Buenos Aires; Dabbene, l.c., 3, p. 195, 1923—Aguada Grande, Rio Santa Cruz; Marelli, *Mem. Min. Obr. Públ. for 1922–23*, p. 598, 1924—Bahia Blanca, Prov. Buenos Aires; Smyth, l.c., 4, p. 2, 1927—Cachari, Buenos Aires (eggs); Aravena, l.c., 4, p. 43, 1924—Arano, Buenos Aires (food); Hudson, l.c., 4, p. 180, 1928 (habits).

Calopezus elegans elegans Dabbene and Lillo, *Anal. Mus. Nac. Buenos Aires*, 24, p. 194, 1913—part, Buenos Aires and Patagonia; Peters, *Bull. Mus. Comp. Zool.*, 65, p. 286, 1923—San Antonio, Maquinchao, and Huanuluan, Rio Negro (crit.); Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 27, 1926—near Carhué, Buenos Aires; idem, *Univ. Calif. Pub. Zool.*, 24, p. 410, 1926—San Antonio Oeste and Valcheta, Rio Negro (crit.).

Eudromia elegans elegans Peters, *Bds. World*, 1, p. 29, 1931 (range); Marelli, *El Hornero*, 5, p. 193, 1933—Est. Sierra de Ventana, Saldungaray, Buenos Aires; Steullet and Deautier, *Obr. Cinc. Mus. La Plata*, 1, p. 153, 1935—Buenos Aires (Cristiano Muerto, Curumalán Chico, Bahia Blanca), Rio Negro (ten leguas south of Viedma), and Santa Cruz (Bahía del Fondo) (synon., range).

Eudromia elegans formosus (not *Calopezus formosus* Lillo) Chubb, *Ibis*, 1919, p. 14—Laguna Alsina, Bonifacio "de Córdoba" (spec. now in Conover Collection).

Range. Patagonia from the Rio Santa Cruz northwards through Chubut and Rio Negro to the Rio Colorado and the southern parts of Province of Buenos Aires.

Field Museum Collection. 4: Argentina (Rivadavia, Chubut, 2; Rio Chico, Chubut, 2).

Conover Collection.—10: Argentina (Laguna Alsina, Bonifacio, Buenos Aires, 1; Cambacérès, Buenos Aires, 2; Pichi Mahuida, Rio Negro, 3; Rawson, Chubut, 3; Pampa Alta, Santa Cruz, 1).

****Eudromia elegans morenoi* (Chubb).¹ MORENO'S MARTINETA.**

Calopezus elegans morenoi Chubb, *Bull. Brit. Orn. Cl.*, 38, p. 31, Dec. 29, 1917—Neuquén, "western Patagonia" (type in the British Museum); Peters, *Bull. Mus. Comp. Zool.*, 65, p. 287, 1923—Tunuyán, Mendoza (crit.); Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 28, 1926—Rio Negro (General Roca), Pampa (Victorica), and Tunuyán, Mendoza (crit.).

Eudromia elegans (not of Geoffroy) Fraser, *Proc. Zool. Soc. Lond.*, 11, p. 116, 1843—pampas near Mendoza; Burmeister, *Journ. Orn.*, 6, p. 161, 1858—

¹ *Eudromia elegans morenoi* (Chubb): Similar to *E. e. elegans*, but dorsal plumage paler and grayer, and dusky barring below less heavy, with a tendency to becoming evanescent on the abdomen.

Birds from Mendoza are not quite typical, being not as plain-bellied as those from Neuquén, which are practically unmarked.

By the reduction of the barring on the under parts, this race forms the transition to *E. e. intermedia*.

Additional material examined.—Neuquén: Lago Nahuel Huapi, 1; Casa Lata, 1.—Mendoza: Mendoza, 2.

near Mendoza; idem, l.c., 8, p. 259, 1860—Mendoza and San Luis; idem, *Reise La Plata St.*, 2, p. 498, 1861—same localities; Martens, *Journ. Orn.*, 23, p. 443, 1875—Vistaflores, Mendoza; Stempelmann and Schulz, *Bol. Acad. Nac. Cienc. Córdoba*, 10, p. 403, 1890—Córdoba.

Tinamotis elegans Bridges, *Proc. Zool. Soc. Lond.*, 15, p. 28, 1847—vicinity of Mendoza.

Calopezus elegans Frenzel, *Journ. Orn.*, 39, p. 124, 1891—Prov. Córdoba; Salvadori, *Cat. Bds. Brit. Mus.*, 27, p. 566, 1895—part, spec. a-h, Mendoza; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 188, 1910—part, Córdoba and Mendoza; idem and Lillo, l.c., 24, p. 194, 1913—part, Mendoza, San Luis, and Córdoba; Reed, *Av. Prov. Mendoza*, p. 6, 1916—Mendoza; Pereyra, *El Hornero*, 3, p. 174, 1923—Conhelo (F.C.O.), central Pampa.

Eudromia elegans morenoi Peters, *Bds. World*, 1, p. 28, 1931 (range); Pereyra, *El Hornero*, 6, p. 74, 1935—Conhelo, Pampa (habits, nest, eggs); Steullet and Deautier, *Obr. Cinc. Mus. La Plata*, 1, p. 155, 1935 (range, synon.).

Range.—Western Argentina from Mendoza, San Luis, and Córdoba south to Pampa and the upper Rio Negro and Rio Limay in Neuquén.

Field Museum Collection.—2: Argentina (Mendoza, 2).

Conover Collection.—14: Argentina (Tunuyán, Mendoza, 8; Las Lajas, Rio Agrio, Neuquén, 2; Chos-Malal, Neuquén, 3; Collon Cura, Neuquén, 1).

****Eudromia elegans albida* (Wetmore).¹ WHITISH MARTINETA.**

Calopezus elegans albidus Wetmore, *Journ. Wash. Acad. Sci.*, 11, p. 437, Nov. 4, 1921—San Juan, Argentina (type in U. S. National Museum).

Eudromia elegans albida Peters, *Bds. World*, 1, p. 28, 1931—San Juan; Steullet and Deautier, *Obr. Cinc. Mus. La Plata*, 1, p. 155, 1935—San Juan.

Range.—Plains of San Juan Province, western Argentina.

Conover Collection.—2: Argentina (Canada Honda, San Juan, 2).

****Eudromia elegans intermedia* (Dabbene and Lillo).² INTERMEDIATE MARTINETA.**

Calopezus intermedius Dabbene and Lillo, *Anal. Mus. Nac. Buenos Aires*, 24, pp. 192, 194, pl. 12, July, 1913—Colalao del Valle, western Tucumán (type in coll. of M. Lillo).

¹ *Eudromia elegans albida* (Wetmore): Similar to *E. e. morenoi*, but much paler; white spots and broken bars of upper surface large, the light markings being more extensive than the darker ones; feathers of lower hind neck extensively marked with dull ivory yellow; light markings on under surface likewise more extensive. Wing, 211; tail, 97½; tarsus, 40½; bill, 25.

The two specimens in the collection are very worn.

² *Eudromia elegans intermedia* (Dabbene and Lillo): Agreeing in proportions and in shape of dusky markings on foreneck and chest with *E. e. morenoi*, but breast and abdomen, excepting a few bars on the sides and flanks, wholly immaculate. Wing, 230; tail, 120; bill, 28.

Colodromas [sic] *elegans* (not *Eudromia elegans* Geoffroy) Koslowsky, Rev. Mus. La Plata, 6, p. 287, 1895—Chilecito, La Rioja.

Calopezus elegans Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 219, 1902—Valles Calchaqués, Tucumán; Giacomelli, Anal. Soc. Cient. Arg., 63, p. 301, 1907—La Rioja; Hartert and Venturi, Nov. Zool., 16, p. 267, 1909—part, La Rioja (cf. Chubb, Ibis, 1919, p. 15); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 188, 1910—part, Chilecito, La Rioja.

Calopezus elegans intermedius Giacomelli, El Hornero, 3, p. 82, 1923—La Rioja.

Eudromia elegans intermedia Peters, Bds. World, 1, p. 28, 1931 (range).

Eudromia formosa intermedia Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 157, 1935—La Rioja to western Tucumán.

Range.—Northwestern Argentina, from western Tucumán (Colalao del Valle, Amaichá) to La Rioja (Chilecito).

Conover Collection.—2: Argentina (Colalao del Valle, Tucumán, 2).

***Eudromia elegans formosa* (Lillo).¹ LILLO'S MARTINETA.**

Calopezus formosus Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 72, July, 1905—eastern Tucumán near the confines of Santiago del Estero (type, from between Las Cejas and Isca Iacú, in coll. of M. Lillo); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 188, 1910—eastern Tucumán; idem and Lillo, l.c., 24, pp. 190, 194, pl. 11, 1913—eastern Tucumán (Las Cejas) and Santiago del Estero (Suncho Corral) (monog.).

Calodromas elegans (not *Eudromia elegans* Geoffroy) Ménégau, Rev. Franç. d'Orn., 1925, p. 224—Rumi, near Icaño, Santiago del Estero.

Calodromas elegans formosus Dinelli, El Hornero, 4, p. 274, 1929—eastern Tucumán and Santiago del Estero (nest and eggs).

Eudromia elegans formosa Peters, Bds. World, 1, p. 28, 1931 (range).

Eudromia formosa formosa Steullet and Deautier, Obr. Cinc. Mus. La Plata, 1, p. 156, 1935—Las Cejas and Suncho Corral (synon.).

Range.—Plains of eastern Tucumán and northwestern Santiago del Estero, northwestern Argentina.

Genus TINAMOTIS Vigors

Tinamotis Vigors, Proc. Zool. Soc. Lond., 4, "1836," p. 79, pub. Jan. 16, 1837—type, by monotypy, *Tinamotis pentlandii* Vigors.

****Tinamotis pentlandii* Vigors. PENTLAND'S TINAMOTIS.**

*Tinamotis pentlandii*² Vigors, Proc. Zool. Soc. Lond., 4, "1836," p. 79, pub. Jan. 16, 1837—"on a high elevation in the Andes," probably Bolivia

¹ *Eudromia elegans formosa* (Lillo) may be distinguished from the preceding race by larger size; much heavier blackish markings on foreneck and chest; different pattern of the dorsal surface with large blotches of black on the wing coverts, etc. The median and posterior under parts are immaculate as in *E. e. intermedia*. Wing, 240–250; tail, 123–128; bill, 30–32.

Material examined.—Argentina: Suncho Corral, Santiago del Estero, 2.

² Frequently spelled *pentlandi*.

(type in coll. of Zoological Society of London, now in British Museum); Gray and Mitchell, Gen. Bds., 3, p. [525], pl. cxxxvii, 1844; Tschudi, Arch. Naturg., 10, (1), p. 308, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 286, 1846—puna region of Peru (habits, eggs); Bridges, Proc. Zool. Soc. Lond., 15, p. 28, 1847—Pass of Tapaquilcha, east of Ascaton, Potosí, Bolivia; Des Murs, in Gay, Hist. Fis. Pol. Chile, Zool., 1, p. 393, 1847—near Santiago (errore); Sclater and Salvin, l.c., 1867, p. 989—Arequipa, Peru; idem, l.c., 1868, p. 570—Arequipa; Taczanowski, l.c., 1874, p. 564—Ninarupa, Junín, Peru; Sclater and Salvin, l.c., 1879, p. 642—near Potosí, Bolivia; Boeck, Mitt. Orn. Ver. Wien, 8, p. 165, 1884—Cordillera of Cochabamba, Bolivia; Taczanowski, Orn. Pér., 3, p. 310, 1886—Peru (Ninarupa, Alacsayco); Sclater, Proc. Zool. Soc. Lond., 1886, p. 404—Huasco, Tarapacá, Chile; idem, l.c., 1891, p. 137—Sacayá and “Canchosa,” Tarapacá; Salvadori, Cat. Bds. Brit. Mus., 27, p. 568, 1895—Bolivia, Chile (Huasco, Sacayá, “Canchosa”), and Peru (Arequipa); Reed, Anal. Univ. Chile, 93, p. 212, 1896—“Atacama” and Tarapacá, Chile; Schalow, Zool. Jahrb., Suppl., 4, p. 647, 1898—“Concepción, Chile” (errore); Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Santa Catalina, Jujuy; Berlepsch and Stolzmann, Ornith., 13, p. 130, 1906—Puno and Huacohuyo, Puno, Peru; Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 217, 1909—Lake Poopo, Bolivia; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 188, 1910—Santa Catalina, Jujuy, and (?) western San Juan (ex Fontana); idem, Bol. Soc. Physic., 1, p. 251, 1913—Santa Catalina, Jujuy; Budin, El Hornero, 1, p. 101, 1918—Quebrada de Huamahuaca, Jujuy (habits); Chubb, Ibis, 1919, p. 15—Galera, Junín, and Sumbay, Arequipa, Peru; Budin, El Hornero, 4, p. 402, 1931—puna of Jujuy; Peters, Bds. World, 1, p. 29, 1931 (range); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 427, 1932—Choquelimpie, Tacna, and Rio Inacaliri, Antofagasta, Chile; Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 157, 1935—Laguna Colorada, Maimará, and Santa Catalina, Jujuy (synon., range); Morrison, Ibis, 1939, p. 461—Talahuarra, Huanacavelica, Peru.

Eudromia andecola d'Orbigny, Voy. Amér. Mérid., 2, p. 68, 1839 (or later)—vicinity of La Paz, Bolivia (type in Paris Museum).

Eudromia penlandii Schlegel, Mus. Pays-Bas, 8, Tinami, p. 47, 1880—Bolivian Andes (descr.).

Range.—Puna zone of southern Peru (north to Junín), Bolivia, northern Chile (Tacna to Antofagasta), and northwestern Argentina (Prov. Jujuy, Los Andes, and Catamarca).¹

Field Museum Collection.—4: Chile (Antofagasta, Rio Inacaliri, 2; Tacna, Choquelimpie, 1); Peru (San Antonio de Esquilache, Puno, 1).

Conover Collection.—4: Argentina (Terr. de los Andes, 1); Peru (Crucero Alto, Puno, 3).

¹ No authentic records appear to exist either for Tucumán or San Juan. Birds from Argentina (Jujuy), northern Chile, and Bolivia agree well.

****Tinamotis ingoufi* Oustalet.¹ INGOUF'S TINAMOTIS.**

Tinamotis ingoufi Oustalet, Ann. Sci. Nat., (7), Zool., 9, p. 18, 1890—vicinity of Santa Cruz, Patagonia (type in Paris Museum examined); idem, Miss. Sci. Cap Horn, 6, p. B105, pl. 1, 1891—Santa Cruz; Salvadori, Cat. Bds. Brit. Mus., 27, p. 569, 1895—Santa Cruz; Scott and Sharpe, Rep. Princet. Univ. Exp. Patag., 2, Orn., p. 31, 1904—Santa Cruz; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 188, 1910—Santa Cruz; idem, El Hornero, 2, p. 134, 1920—San Julián, Santa Cruz, Patagonia (eggs descr.); Pozzi, l.c., 3, p. 180, 1923—Aguada Grande, Rio Santa Cruz (habits); Peters, Bull. Mus. Comp. Zool., 65, p. 287, 1923—Huanuluan, western Rio Negro; idem, Bds. World, 1, p. 29, 1931 (range); Steullet and Deautier, Obra Cinc. Mus. La Plata, 1, p. 158, 1935—Santa Cruz.

Range.—Southern Argentina in Territory of Santa Cruz, Patagonia; casual in western Rio Negro (Huanuluan).

Conover Collection.—9: Argentina, Territory of Santa Cruz (Aguada Grande, 1; Estación Pampa Alta, 7; unspecified, 1).

Order GALLIFORMES

Suborder GALLI

Family CRACIDAE. Curassows, Guans, Chachalacas

Genus NOTHOCRAX Burmeister

Nothocrax Burmeister, Syst. Uebers. Th. Bras., 3, p. 347, 1856—type, by monotypy, *Craz urumutum* Spix.

****Nothocrax urumutum* (Spix). NOCTURNAL CURASSOW.**

Craz urumutum Spix, Av. Spec. Nov. Bras., 2, p. 49, pl. 62, 1825—Rio Negro, Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 683, 1906); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 746, 1848—"British Guiana (fide Swainson)," probably=Rio Negro (cf. Hellmayr, Verh. Orn. Ges. Bay., 14, pp. 273, 274, 1920); Pelzeln, Orn. Bras., 3, p. 288, 1870—Cocuy and São Gabriel, Rio Negro (habits).

Uraz urumutum Burmeister, Syst. Uebers. Th. Bras., 3, p. 347, 1856 (ex Spix).

Nothocrax urumutum Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 519—Rio Negro, Rio Pastaza, and "British Guiana" (ex Schomburgk); idem, l.c., 1873, p. 307—Rio Pastaza and Nauta, Peru (nocturnal habits); Slater, Trans. Zool. Soc. Lond., 9, p. 282, pl. 50 (fig. falsa), 1875—"British Guiana" (ex Schomburgk), Rio Negro, and Rio Pastaza; idem, Proc. Zool. Soc. Lond., 1877, p. 681 (color of soft parts); idem, Trans. Zool. Soc. Lond., 10, p. 545, pl. 94 (fig. accur.), 1879; Salvin, Ibis, 1886, p. 174—"British Guiana" (ex Schomburgk); Taczanowski, Orn. Pér.,

¹ *Tinamotis ingoufi* Oustalet may be distinguished from *T. penlandii* by the different scutellation of the lower portion of the tarsus, as well as by numerous color characters, notably the bright rufous remiges and primary coverts.

Additional material examined.—Patagonia: Santa Cruz, 2 (including the type).

3, p. 265, 1886—Rio Pastaza and Iquitos, Peru; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 484, 1893—Ecuador (Sarayacu) and Brazil (Rio Negro); idem, Handb. Game-Bds., 2, p. 213, 1897 (monog.); Chubb, Bds. Brit. Guiana, 2, p. 20, 1921—"British Guiana" (ex Schomburgk); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—near Curaray River, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 152, 1926—Rio Suno, Ecuador; Peters, Bds. World, 2, p. 9, 1934 (range).

Range.—Upper Amazonia, from the Rio Negro (São Gabriel, Cocuy) and the Rio Purús west to eastern Ecuador and northeastern Peru (Rio Pastaza; Nauta and Iquitos, northern bank of the Rio Marañón).¹

Conover Collection.—7: Brazil (Rio Purús, Labrea, 1); Ecuador (Concepción, 1; Verde Yaco, 1; Loreto, Ouca Yaco, 1; headwaters of Rio Tigre, Napo-Pastaza, 3).

Genus MITU Lesson

Mitu Lesson, *Traité d'Orn.*, livr. 7, p. 485, April, 1831—type, by tautonymy, *Ourax mitu* Temminck=*Crax mitu* Linnaeus.

Mitua Strickland, *Ann. Mag. Nat. Hist.*, 7, p. 36, 1841—emendation.

**Mitu mitu* (Linnaeus). RAZOR-BILLED CURASSOW.

Crax mitu Linnaeus, *Syst. Nat.*, 12th ed., 1, p. 270, 1766—based mainly on "Mitu" Marcgrave, *Hist. Nat. Bras.*, p. 194; northeastern Brazil.²

Crax nudifrons Lichtenstein, *Cat. Rer. Nat. Rariss.*, p. 37, 1793—Brazil.

Pauxi mitu Temminck, *Hist. Nat. Fig. Gall.*, 3, pp. 8, 685, 1815—Brazil (part, excl. of supposed "young").

Ourax mitu Temminck, *Nouv. Rec. Pl. Col.*, livr. 26, pl. 153, 1822—Brazil; Tschudi, *Unters. Faun. Peru.*, Aves, p. 289, 1846—Maynas and Montañas of central Peru; Pelzeln, *Orn. Bras.*, 3, p. 288, 1870—Matto Grosso (Engenho do Gama, Nas Laranjeiros, Villa Bella), Rio Madeira (Salto Theotônio, Borba), Rio Solimões (lakes Manaqueri and Joanacan), and Pará, Brazil.

Crax tuberosa Spix, *Av. Spec. Nov. Bras.*, 2, p. 51, pl. 67a, 1825—Rio Solimões, Brazil (cotypes in Munich Museum examined; cf. Hellmayr, *Abhandl.* 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 688, 1906).

Ourax erythrorhynchus Swainson, *Nat. Hist. Class. Bds.*, 2, p. 352, July, 1837—new name for *Ourax mitu* Temminck, *Nouv. Rec. Pl. Col.*, pl. 153.

¹ No definite record exists from British Guiana. B. Brown's note (Canoe and Camp Life in British Guiana, p. 132, 1876), quoted by Chubb, appears to refer to *Mitu tomentosa*. On the other hand, a notice of André's (Naturalist in the Guianas, p. 158, 1904) indicates the occurrence of a curassow of nocturnal habits on the Caura River, Venezuela.

² In Marcgrave's description no mention is made of the white tail-tipping. While the species has not been found in the region explored by Marcgrave, its most easterly recorded locality being the Pará district, there is the possibility that he might have seen a captive specimen with abraded tail in some Indian village.

Urax tuberosa Burmeister, Syst. Uebers. Th. Bras., 3, p. 348, 1856—Rio Solimões (ex Spix).

Urax mitu Burmeister, Syst. Uebers. Th. Bras., 3, p. 349, 1856—"north of Bahia, near Pernambuco, Pará, and lower Amazon"; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 558—Monterico and Amable Maria, Peru.

M[itu] brasiliensis Reichenbach, Vollst. Naturg. Tauben, p. 137, 1862—Brazil and Peru (based mainly on "Mitu" of Marcgrave).

Mitua tuberosa Bates, Naturalist on the Amazon, 2, p. 112, 1863—Rio Cupari, easterly tributary of Rio Tapajóz, above Aveiros, Brazil (breeding habits); Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 520—"British Guiana" (error), Pará, Rio Madeira, Matto Grosso, Rio Tapajóz, and Peru (Chamicuros); Burmeister, l.c., 1871, p. 701—Santa Cruz de la Sierra, Bolivia; Selater and Salvin, l.c., 1873, p. 307—Chamicuros and Loreto, Rio Marañón, Peru; Selater, Trans. Zool. Soc. Lond., 9, p. 283, pl. 51, 1875—Brazil (Rio Madeira, Matto Grosso, Rio Tapajóz) and Peru (Chamicuros, Loreto) (monog.); Taczanowski, Orn. Pér., 3, p. 266, 1886—Peru (Maynas, Chamicuros, Loreto, Monterico); Allen, Bull. Amer. Mus. N. H., 2, p. 106, 1889—lower Beni, Bolivia.

Mitua mitu Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 485, 1893—Cosnipata, Peru, and Lake Joanacan, Rio Solimões, Brazil; idem, Handb. Game-Bds., 2, p. 214, 1897 (monog., range excl. of British Guiana); Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará; Ihering, Rev. Mus. Paul., 6, "1904," p. 451, 1905—Rio Juruá, Brazil; Snethlage, Bol. Mus. Goeldi, 8, p. 54, 1914—Capim and Rio Acará, Pará.

Mitu mitu Ihering, Cat. Faun. Braz., 1, p. 12, 1907—Rio Juruá, Brazil (range); Hellmayr, Nov. Zool., 17, p. 417, 1910—Jamarysinho, Rio Machados, Brazil; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 81, 97, 1912—Rio Acará and Pará localities; Chubb, Ibis, 1919, p. 15—San Ernesto, upper Beni, Bolivia; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Rio Muraitauá, Pará; Naumburg, Bull. Amer. Mus. N. H., 60, p. 62, 1930—Morinho Lyra, Matto Grosso; Peters, Bds. World, 2, p. 10, 1934 (range).

Range.—Amazonia, south of the Amazon, from the Pará region west to eastern Peru, and south to Matto Grosso and eastern Bolivia.¹

Field Museum Collection.—1: Peru (between Moyobamba and Balsapuerto, 1).

Conover Collection.—14: Brazil (Rio Capim, Resacca, 2; Rio Tapajóz, Caxiricatuba, 3; Boim, 1; Pinhel, 3; Rio Purús, Labrea, 1); Peru (Chuchurras, 1); Bolivia (Rio Ichilo, Santa Cruz, 2; Buenavista, Santa Cruz, 1).

¹ Birds from Pará, the Rio Madeira, and Matto Grosso agree well together, and four from Peru (Chuchurras, Dept. Huánuco) are not different.

The reported occurrence in British Guiana is due to misidentification of Swainson's *Ourax erythrorhynchus*, as characterized in "Animals in Menageries." Cf. Hellmayr, Verh. Orn. Ges. Bay., 14, p. 273, 1920.

Nineteen additional specimens examined.

***Mitu salvini** (Reinhardt). SALVIN'S RAZOR-BILLED CURASSOW.

Mitua salvini Reinhardt, Vidensk. Medd. Naturhist. Foren., 31, p. 5, 1879—no locality= eastern Ecuador (type in Copenhagen Museum); Sclater, Proc. Zool. Soc. Lond., 1879, p. 109 (crit.); idem, Trans. Zool. Soc. Lond., 10, p. 545, pl. 95, 1879—"Brazil, prov. Bahia?" (fig. of type); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 487, 1893—Sarayacu, Ecuador; idem, Handb. Game-Bds., 2, p. 215, 1897—Sarayacu; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 37, 1900—Rio Zamora and Rio Santiago, Ecuador.

Mitu salvini Chapman, Bull. Amer. Mus. N. H., 55, p. 152, 1926—Rio Suno, Ecuador; Peters, Bds. World, 2, p. 10, 1934—eastern Ecuador.

Range.—Tropical zone of eastern Ecuador (Sarayacu, Rio Suno, Rio Zamora, Rio Santiago, etc.).

Conover Collection.—9: Ecuador (Concepción, 1; Raya-Yaco, 1; Loreto, Montes del Suno, 2; Raya-Chigta, 1; headwaters of Rio Tigre, Napo-Pastaza, 4).

***Mitu tomentosa** (Spix). LESSER RAZOR-BILLED CURASSOW.

Craz tomentosa Spix, Av. Spec. Nov. Bras., 2, p. 49, pl. 63, 1825—Barcellos, Rio Negro, Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 683, 1906); Schomburgk, Reisen Brit. Guiana, 1, p. 418; 2, pp. 18, 31, 1848—Nappi, Mahu, and Rio Takutu.

Pauxi mitu (not *Craz mitu* Linnaeus) Temminck, Hist. Nat. Pig. Gall., 3, p. 8, 1815—part, supposed "young."

Ourax erythrorhynchus (not of Swainson, July, 1837) Swainson, Anim. Menag., p. 187, Dec. 31, 1837—River "Tokoto" [sic], British Guiana (crit.).¹

Urax erythrorhynchus Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 747, "1848" [=1849]—British Guiana (ex Swainson).¹

Urax tomentosa Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 746, 1848—Takutu and Mahu rivers; Burmeister, Syst. Uebers. Th. Bras., 3, p. 349, 1856—Barcellos, Rio Negro (ex Spix).

Ourax tomentosa Pelzeln, Orn. Bras., 3, p. 288, 1870—Rio Negro (below Poiares, Marabitanas, Serra do Cocuy, São Isabel, San Carlos) and Rio Branco (Forte do São Joaquim), Brazil.

Mitua tomentosa Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 520—British Guiana, Rio Negro, and Rio Branco; Sclater, Trans. Zool. Soc. Lond., 9, p. 284, pl. 52, 1875 (monog.); Salvin, Ibis, 1886, p. 174—British Guiana (ex Schomburgk); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 487, 1893—British Guiana (Rio Rupununi) and Rio Negro (Marabitanas); idem, Handb. Game-Bds., 2, p. 215, 1897 (monog.); Berlepsch and Hartert, Nov. Zool., 9, p. 120, 1902—Rio Orinoco (Altigracia, Quiribana de Caicara) and Caura Valley (Nicaré), Venezuela; André, Naturalist in the Guianas, p. 156, 1904—Caura River, Venezuela; Cherrie, Sci. Bull.,

¹ Cf. Hellmayr, Verh. Orn. Ges. Bay., 14, p. 273, 1930.

Mus. Brookl. Inst., 2, p. 355, 1916—Orinoco Valley (Las Gaucas, San Feliz River, etc.; nest and eggs descr.).

Mitua tuberosa (not *Crax tuberosa* Spix) Salvin, Ibis, 1886, p. 174—British Guiana (ex Schomburgk, ex Swainson).¹

Mitua mitu Berlepsch, Nov. Zool., 15, p. 296, 1908—part, British Guiana.

Mitua mitu Chubb, Bds. Brit. Guiana, 2, p. 22, 1921—British Guiana (ex Schomburgk, ex Swainson); Delacour, Ibis, 1923, p. 138—Rio Apure, Venezuela.

Mitua tomentosa Chubb, Bds. Brit. Guiana, 2, p. 22, 1921—upper Takutu Mountains and Rupununi River; Todd, Proc. Biol. Soc. Wash., 45, p. 210, 1932 (crit.); Peters, Bds. World, 2, p. 10, 1934 (range).

Range.—Southern British Guiana, the adjacent parts of Brazil (from the Rio Branco to the Rio Negro), and the Orinoco Valley and its tributaries in Venezuela.²

Conover Collection.—1: Brazil (Amazonas, Rio Catrimany, 1).

Genus PAUXI Temminck

Pauxi Temminck, Hist. Nat. Fig. Gall., 2, pp. 456, 465, 1812; l.c., 3, pp. 1, 683, 1815—type, by tautonymy, *Crax pauxi* "Latham et Gmelin" [=Linnaeus].

Ourax Cuvier, Règne Anim., 1, p. 440, "1817" [=Dec. 7, 1816]—type, by subs. desig. (Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 519), *Pauxi galeata*=*Crax pauxi* Linnaeus.

Lophocerus (not *Lophoceros* Hemprich and Ehrenberg, 1833) Swainson, Nat. Hist. Class. Bds., 2, p. 353, July 1, 1837—type, by monotypy, *Crax galeata* Latham=*Crax pauxi* Linnaeus.

Urac ("Cuvier") Reichenbach, Av. Syst. Nat., p. xxvi, March 1, 1850—type, by subs. desig. (Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 519), *Pauxi galeata*=*Crax pauxi* Linnaeus.

Pauris Slater, Trans. Zool. Soc. Lond., 9, p. 285, 1875—emendation of *Pauxi* Temminck.

**Pauxi pauxi* (Linnaeus). HELMETED CURASSOW.

Crax pauxi Linnaeus, Syst. Nat., 12th ed., 1, p. 270, 1766—based on "Gallina indica alia" Aldrovandi, "Le Hocco du Mexique" Brisson, etc.; "Mexico," errore, = Venezuela.

Crax galeata Latham, Ind. Orn., 2, p. 624, 1790—based on "Crax vertice cono corneo onusto" Brisson, Orn., 1, p. 87, 1763; "in insula Curassao," errore.

Pauxi galeata Temminck, Hist. Nat. Fig. Gall., 3, pp. 1, 683, 1815—"Mexico and Curaçao Island" (monog.); Gray and Mitchell, Gen. Bds., 3, p. [487], pl. 122 (female), Nov., 1846; Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 519—"Cayenne" (Buffon), "Rio Cassiquiare and Orinoco" (Natterer), Venezuela (near Caracas), and "Santa Marta" (monog.); Summerhayes, l.c., 1874, p. 420—sierra inland of Aroa, Venezuela.

¹ Cf. Hellmayr, Verh. Orn. Ges. Bay., 14, p. 273, 1930.

² Twelve specimens, including one from British Guiana, examined.

Ourax pauxi Cuvier, Règne Anim., 1, p. 440, "1817" [=Dec. 7, 1816] (descr.).
Ourax galeata Tschudi, Untersuch. Faun. Peru., Aves, p. 289, 1846—"Prov. Maynas, Peru" (errore).

Urax pauxi Burmeister, Syst. Uebers. Th. Bras., 3, p. 350, 1856 (range imaginary).

Ourax (Crax) pauxi Pelzeln, Orn. Bras., 3, p. 289, 1870—"banks of the Rio Cassiquiare and Orinoco" (from hearsay).

Pauris galeata Sclater, Trans. Zool. Soc. Lond., 9, p. 285, pl. 53, fig. 1 (male), 1875—Venezuela ("Rio Cassiquiare and upper Orinoco"; near Caracas, and near Tucacas); Funck, Proc. Zool. Soc. Lond., 1875, p. 566—forests of Venezuela (from San Esteban up to the Cumbre de Valencia, also in the mountains of Noigua and Montalban); Rowley, l.c., 1877, p. 684 (coloration of female); Sclater, l.c., 1880, p. 648 (coloration of female); Taczanowski, Orn. Pér., 3, p. 266, 1886—"Maynas, Peru" (ex Tschudi).

Pauris galeata var. *rubra* Sclater, Trans. Zool. Soc. Lond., 9, pl. 53, fig. 2 (female), 1875; Funck, Proc. Zool. Soc. Lond., 1875, p. 566 (crit.).

Pauris pauxi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 488, 1893 (monog., range imaginary); idem, Handb. Game-Bds., 2, p. 216, 1897 (monog.).

Pauxi pauxi Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 29, 1922—La Azulita, Rio Guachi, Mérida, Venezuela; Peters, Bds. World, 2, p. 10, 1934 (range).

Range.—Tropical mountain forests of northwestern Venezuela, from the vicinity of Caracas west to Mérida.¹

Conover Collection.—1: Venezuela (La Azulita, Mérida, 1).

Pauxi unicornis Bond and de Schauensee.² BOLIVIAN HELMETED CURASSOW.

Pauxi unicornis Bond and de Schauensee, Not. Nat. Acad. Nat. Sci. Phila., 29, p. 1, Oct. 24, 1939—hills above Bolivar, near Palmar, alt.

¹ The reported occurrence in Cayenne, eastern Peru (Maynas), and Colombia (Santa Marta), as well as in southern Venezuela (banks of the Rio Cassiquiare and upper Orinoco) has never been corroborated.

In addition to various specimens of doubtful origin, one of us has examined three, collected by S. Briceño in the Montaña del Cápas (alt. 200 meters), below the city of Mérida.

² *Pauxi unicornis* Bond and de Schauensee: Differs from *Pauxi pauxi* by the differently shaped casque which is roundly conical (almost cylindrical, with rounded top) instead of fig-shaped. It would seem that there also may be a difference in coloration of the casque which in a specimen of *unicornis* examined by the junior author is black (given as leaden blue in life), while in a specimen of *pauxi* the casque is a light yellowish brown. Also the upper edge of the culmen is sharper, less rounded. In the Bolivian bird the feathers of the center of the crown, nape, and hind neck are tightly curled upwards in sharp contrast to the sides of the face and neck, whereas in a Venezuelan specimen the feathers of these parts are only slightly curled and are not in contrast with the sides of the face and neck (in the specimen of *pauxi* examined a few feathers directly under the casque are tightly curled). The color pattern of *unicornis* is similar to *pauxi*, but the plumage is greenish without any blue gloss and the dark fringes on the feathers of the lower neck and mantle are much less strongly marked.

Material examined.—Bolivia: Palmar, Yungas de Cochabamba, 1.

2,500 ft., Yungas de Cochabamba, Bolivia (type in the Academy of Natural Sciences of Philadelphia).

Range.—Known only from near Palmar, Yungas de Cochabamba, Bolivia.

Genus CRAX Linnaeus

Crax Linnaeus, Syst. Nat., 10th ed., 1, p. 157, 1758—type, by subs. desig. (Ridgway, Man. N. Amer. Bds., ed. 2, p. 207, note 2, 1896), *Crax rubra* Linnaeus.

Alector Merrem, Av. Rar. Icon. et Descr., fasc. 2, p. 40, 1786—type, by tautonymy, *Crax alector* Linnaeus.

Mituporanga Reichenbach, Vollst. Naturg. Tauben, p. 136, 1862—type, by subs. desig. (Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 474, 1893), *Crax globicera* Linnaeus.

Crassolaryngus Reichenbach, Vollst. Naturg. Tauben, p. 136, 1862—type, by subs. desig. (Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 136, 1893), *Crax globulosa* Spix.

Sphaerolaryngus Reichenbach, Vollst. Naturg. Tauben, p. 136, 1862—type, by monotypy, *Crax alberti* Fraser.

**Crax alector* Linnaeus.¹ CRESTED CURASSOW.

Crax alector Linnaeus,² Syst. Nat., 12th ed., 1, p. 269, 1766—based principally on “Le Hocco de la Guiane” Brisson (Orn., 1, p. 298, pl. 29), “la Guiane” [=Cayenne], “Brésil” et “la Jamaïque” (errore); Temminck, Hist. Nat. Fig. Gall., 3, pp. 27, 689, 1815 (in part); Vieillot (and Oudart), Gal. Ois., 2, p. 6, 1822; Schomburgk, Reisen Brit. Guiana, 2, p. 31, 1848—Takutú River; Cabanis, l.c., 3, p. 746, “1848”—British Guiana (ecology); Selater, Proc. Zool. Soc. Lond., 25, p. 19, 1857—“Bogotá”; Pelzeln, Orn. Bras., 3, p. 286, 1870—Rio Negro (Barra do Rio Negro, Cachoeira do Veado, São Gabriel, foot of Serra do Cocuy, Marabitanas), Rio Vaupé (São Joaquim), and Rio Branco (Forte do São Joaquim), Brazil; Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 514—British Guiana, Rio Negro, Rio Vaupé, and Rio Branco (descr.); Selater, Trans. Zool. Soc. Lond., 9, p. 277, pl. 43 (male, female), 1875 (monog.); B. Brown, Canoe and Camp

¹ *Crax nigra* Linnaeus (Syst. Nat., 10th ed., 1, p. 157, 1758) has been applied to the present species by Chubb and others. Of the references quoted by Linnaeus, *Gallus indicus* Sloane (Voy. Jamaica, 2, p. 302, pl. 260), described and figured as “entirely black,” rests on a bird brought to Jamaica from Curaçao, where no curassow occurs, and appears to be unidentifiable. Marcgrave’s “Mitu” is the basis of *Mitu mitu* (Linnaeus), whereas Aldrovandi’s account refers to some species with knob and wattles at the base of the bill. Alone, Dodart’s “Coq Indien,” while also including *Pauzi pauzi*, may possibly deal in part with what we call *C. alector*, although he speaks of the gloss of the plumage as being “verdâtre,” which does not suit the purple-glossed Crested Curassow. We do not see, therefore, how *nigra* can be accepted. *Crax sloanei* Reichenbach (Vollst. Naturg. Tauben, p. 131, 1862), proposed for “*Gallus indicus*” of Sloane, is, of course, just as ambiguous as its basis.

² Although Linné’s synonymy contains various inapplicable references such as Sloane, Hernandez, and Marcgrave’s “Mituporanga,” his description, which seems to have been taken largely from Brisson, is unmistakable.

Life Brit. Guiana, p. 345, 1877—along the Corentyne River; Salvin, Ibis, 1886, p. 174—Camacusa, British Guiana; W. L. Slater, Ibis, 1887, p. 318—Pomeroon River, British Guiana; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 475, 1893—Colombia ("Bogotá"), Brazil (São Gabriel, Manáos), British Guiana (Camacusa, Demerara), and Surinam; idem, Handb. Game-Bds., 2, p. 201, 1897 (monog.); Berlepsch and Hartert, Nov. Zool., 9, p. 120, 1902—Nericagua, Rio Orinoco, Venezuela; André, A Naturalist in the Guianas, p. 156, 1904—Caura River, Venezuela; Beebe, Trop. Wild Life, 1, p. 127, 1907—Bartica, British Guiana; Ihering, Cat. Faun. Braz., 1, p. 10, 1907 (range); Berlepsch, Nov. Zool., 15, p. 296, 1908 Cayenne; Penard, Vog. Guyana, 1, p. 295, 1908—Surinam; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 190, 1913—Caño Vagre, Orinoco delta, Venezuela; Sneath, Bol. Mus. Goeldi, 8, p. 53, 1914 (range); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 356, 1916—Maipures and beyond, Rio Orinoco; Chapman, Bull. Amer. Mus. N. H., 36, p. 194, 1917—Buena-vista, eastern Colombia.

Craz mitu (not of Linnaeus) Vieillot et Oudart, Gal. Ois., 2, pl. 199, 1822 (male).

Craz erythrogna Slater and Salvin, Proc. Zool. Soc. Lond., 1877, p. 22—"Bogotá," Colombia (cotypes in Salvin-Godman Collection, now in British Museum, examined); Slater, Trans. Zool. Soc. Lond., 10, p. 543, pl. 90 (male, female), 1879 (monog.).

Craz nigra (not of Linnaeus) Chubb, Bds. Brit. Guiana, 1, p. 17, 1916—Bonasika, Mazaruni River, Taramu and Corentyne rivers, Camacusa, Aremu, and Maccasseema, Pomeroon River; Peters, Bds. World, 2, p. 10, 1934 (range).

Range.—French, Dutch, and British Guiana, south through northern Brazil to the north bank of the Amazon, west to the Rio Negro; southern Venezuela (Orinoco Valley and tributaries) west to the eastern base of the east Colombian Andes (Buenavista).¹

Field Museum Collection.—7: British Guiana (unspecified, 1; Oko Mountains, Essequibo, 5); Brazil (Rio Branco, Serra Grande, 1).

Conover Collection.—14: British Guiana (Berbice, 1; Rockstone, Essequibo River, 1; Oko Mountains, Essequibo, 3); Brazil (Lago Cuiepeua, east of Obidos, 1; Rio Curicuriary, Amazonas, 1; Lago Canacary, Amazonas, 1; Itacoatiará, 1; Igarapé Arriba, Amazonas, 5).

¹ Colombian specimens (*C. erythrogna*) are nowise different from Guianan ones. The only supposed character in the color of the basal portion of the bill does not exist, since it varies, in Guianan and Brazilian examples, from chrome-yellow to orange red. The sexes in this species are nearly alike, the female merely differing by the presence of some white spots in the crest. The purplish gloss of plumage, together with the bare loreal and orbicular regions and the absence of white at the tip of the rectrices, serves to distinguish this species from its allies.

Additional specimens examined.—British Guiana: Camacusa, 1; unspecified, 3.—Venezuela: Nericagua, 1.—Colombia: "Bogotá," 2.—Brazil: Forte do São Joaquim, Rio Branco, 2; São Gabriel, Rio Negro, 1; Cachoeira do Veado, Rio Negro, 1; foot of Serra do Cocuy, Rio Negro, 1.

***Crax blumenbachii* Spix.¹ BLUMENBACH'S CURASSOW.**

Crax blumenbachii Spix, Av. Spec. Nov. Bras., 2, p. 50, pl. 64 (female), 1825— "in sylvis provinciae Rio de Janeiro" (cotypes in coll. of Munich and Frankfort museums examined); Burmeister, Syst. Uebers. Th. Bras., 3, p. 345, 1856—Rio da Pomba, Minas Geraes (descr. of male and female; female in Halle Museum examined); Hartert, Kat. Vogels. Mus. Senckenb. Naturh. Gesells., p. 200 (note 376), 1892 (crit. on cotypes); Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, pp. 684-688, 1906 (monog., range); Ihering, Cat. Faun. Braz., 1, p. 11, 1907 (range); Peters, Bds. World, 2, p. 12, 1934 (range); Pinto, Bol. Biol., (n.s.), 2, p. 74, 1935—eastern Minas Geraes; idem, Rev. Mus. Paul., 22, p. 96, 1937—Mayrink, Minas Geraes.

Crax rubrirostris Spix, Av. Spec. Nov. Bras., 2, p. 51, pl. 67 (male), 1825—"inter Rio de Janeiro et Bahia," Brazil (type in Munich Museum examined); Wied, Beitr. Naturg. Bras., 4, (2), p. 528, 1833—southern Bahia (Alcobaca, Belmonte) and Espirito Santo (Rio Doce, Rio Mucuri, Rio Itapemirim, and Rio Itabapuana) (descr. male and female; female in Vienna Museum examined); Burmeister, Reise Bras., p. 309, 1853—below São Caetano, Rio da Pomba, Minas Geraes; Euler, Journ. Orn., 16, p. 192, 1868—forests of the Rio Parahyba, Rio de Janeiro (nesting in captivity, eggs descr.).

Crax alector (not of Linnaeus) Wied, Reise Bras., 1, pp. 262 (8vo ed., p. 260), 360 (8vo ed., p. 357), 371 (8vo ed., p. 368), 1820—Morro d'Arara (Rio Mucuri), Espirito Santo, and Rio Belmonte (Ilha do Chave, below Quartal dos Arcos), Bahia; idem, l.c., 2, p. 125, 1821—Rio Salgado (affluent of Rio Ilhéos), Bahia; A. de Saint-Hilaire, Voy. Prov. Rio de Janeiro et Minas Geraes, 2, p. 67, 1830—Alto dos Bois, near Minas Novas, Minas Geraes (descr. opt. of adult male); idem, Voy. Distr. des Diamants et Litt. du Brésil, 2, p. 336, 1833—shores of Lake Juparanán, near Linhares, Rio Doce, Espirito Santo (common).

¹ *Crax blumenbachii* Spix: Adult male similar to *C. f. fuscilata* in having the plumage glossed with green, but loreal and orbicular regions (except a very narrow rim round the eye) feathered; rectrices without any trace of white apical margin; legs and feet dusky; bill smaller and less elevated. Female nearest to that of *C. rubra rubra*, but much smaller, especially bill and tarsi much shorter and slenderer; crest-feathers with two to three white bands; sides of head uniform black; throat, foreneck, and nape bronzy-black, not banded with black and white; lesser and median wing coverts bronze-green with chestnut vermiculations instead of wholly chestnut; rectrices nearly uniform bronze green, at best the two median ones with some rufescent vermiculations at the extreme base. Wing, (male) 365, (female) 330-350; tail, 360, (female) 320; bill, 43½, (female) 35-40.

This species, by the absence of knob and wattles on the bill, resembles *C. alector* and *C. fuscilata*, but has a weaker bill and no extensive bare area on the sides of the head, there being just a narrow naked rim round the eye. The feet appear to be decidedly darker than in the allied species, and the basal portion of the bill is described by that careful observer, Prince of Wied-Neuwied, as "orange red." The female, however, more nearly approaches that of *C. rubra* in coloration, but may be distinguished by lesser dimensions and various other details.

The species is said to be, at least locally, on the verge of extinction, and but a few specimens are preserved in scientific collections.

Material examined.—Brazil: "Rio de Janeiro," 2 (females); between Rio de Janeiro and Bahia, 1 (male); Rio da Pomba, Minas Geraes, 1 (female); unspecified, 1 (female; collected by Maximilian Prince of Wied).

Craz carunculata (not of Temminck) Euler, Rev. Mus. Paul., 4, p. 100, 1900 (nesting habits in captivity); Ihering, l.c., 4, p. 164, 1900—Cantagallo.

Range.—Forests of southeastern Brazil, in southern Bahia (north to the Rio Ilhéos), Espírito Santo, Rio de Janeiro (valley of the Rio Parahyba), and eastern Minas Geraes (Mayrink, Minas Novas, Rio da Pomba).

***Craz fasciolata pinima* Pelzeln.¹ NATTERER'S CURASSOW.**

Craz pinima Pelzeln, Orn. Bras., 3, pp. 287, 341, 1870—Praia do Cajútuba, near Pará, Brazil (descr. of female; type in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 518 (crit.); Sclater, Trans. Zool. Soc. Lond., 9, p. 281, 1875 (ex Pelzeln); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 477, 1893—part, hab. Pará only; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 682 (in text), 1906 (female descr.); Ihering, Cat. Faun. Braz., 1, p. 11, 1907—Pará; Peters, Bds. World, 2, p. 11, 1934—Pará; Pinto, Bol. Biol., (n.s.), 2, pp. 71, 73, 75, 1935—Bõa Vista and Primeira Cruz, Maranhão (crit., descr. of male).

Craz fasciolata (not of Spix) Goeldi, Ibis, 1903, pp. 491, 499—Rio Capim, Pará, and Rio Guajahú, Maranhão (crit.); Snethlage, Bol. Mus. Goeldi, 8, p. 53, 1914—Rio Capim.

Craz sclateri pinima Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Cajútuba and Rio Capim, Pará.

Range.—Northeastern Brazil, from the Rio Tocantins (Cametá), Pará, east to northern Maranhão (Rio Guajahú, Bõa Vista, Primeira Cruz).

****Craz fasciolata fasciolata* Spix. SCLATER'S CURASSOW.**

Craz fasciolata Spix,² Av. Spec. Nov. Bras., 2, p. 48, pl. 62a, 1825—"in sylvis Parae" (type lost, formerly in Munich Museum); Ogilvie-Grant, Cat. Bds.

¹ *Craz fasciolata pinima* Pelzeln: Similar to *C. f. fasciolata*, but with decidedly smaller bill and shorter tail; female with pale markings on back, wing-coverts, remiges, and rump reduced to narrow broken wavy lines of buffy white; rectrices—aside from the buffy-white apical margin—black, with mere traces of whitish wavy cross-lines; whole breast and tibial feathers broadly banded with black and buff; lower abdomen and under tail coverts much paler, buff instead of deep ochraceous-buff; inner web of remiges with mere suggestions of whitish cross-bands. Wing (female), 350; tail, 310.

The characters of this scarce curassow in the female sex have recently been corroborated by Pinto on the basis of specimens from Bõa Vista, Maranhão. Two males from the same region agree in coloration with *C. f. fasciolata*, but have decidedly smaller bills. The Berlin Museum has both sexes collected by Sieber at Cametá on the Rio Tocantins.

² In the revision of Spix's types, Hellmayr had rejected the name *C. fasciolata*, on account of certain discrepancies in the coloration of the crest between Spix's description and the female specimens of *C. sclateri* available for comparison at the time. Several examples in a larger series of that sex from the Rio Araguaya, Goyáz, subsequently examined show, however, the same amount of white barring to the crest-feathers as depicted in Spix's plate, and since the range of the bird called "*sclateri*" seems to extend to the Amazon Valley, we have no hesitation in following Pinto's acceptance of *fasciolata* as the earliest name for the western

- Brit. Mus., 22, p. 476, 1893—Rio do Cabaçal, Brazil; idem, Handb. Game-Bds., 2, p. 202, 1897—part, excl. of Bolivia; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 15, 1900—Urucúm, Matto Grosso; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 681, 1906 (crit.); Pinto, Bol. Biol., (n.s.), 2, pp. 72, 73, 75, 1935—Matto Grosso (Corumbá, Coxim), Goyáz (Pilar), Minas Geraes (Pirapora), São Paulo (Ituverava, Rio Grande), and "Obidos," Pará (crit.); idem, Rev. Mus. Paul., 20, p. 31, 1936—Rio das Almas (Fazenda Thomé Pinto) and Pilar, Goyáz (crit.).
- Craz sclateri* G. R. Gray, List Bds. Brit. Mus., 5, p. 14, 1867—part, spec. a, b, "Mexico," errore (cotypes in British Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 515—Paraguay and Matto Grosso (descr.); Pelzeln, Orn. Bras., 3, p. 287, 1870—Rio dos Porruos, Villa Maria, Rio Cabaçal, Rio de Sipotuba, Caiçara, and Rio Guaporé below Tres Barras, Matto Grosso, Brazil; Sclater, Trans. Zool. Soc. Lond., 9, p. 278, pls. 44 (male, female), 45 (female), 1875—Paraguay and Matto Grosso (monog.); Berlepsch, Journ. Orn., 35, p. 34, 1887—Rio Pilcomayo, Paraguay; Sclater and Hudson, Arg. Orn., 2, p. 145, 1889—Paraguay and Argentina; Kerr, Ibis, 1892, p. 147—forests near the Rio Paraguay, Chaco, Paraguay; Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 682, 1906 (characters); Ihering, Cat. Faun. Braz., 1, p. 10, 1907—São Paulo (Itapura, Santa Cruz do Rio Pardo, Barretos); Hellmayr, Nov. Zool., 15, p. 94, 1908—Fazenda Esperança and Rio Araguaya, Goyáz (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 189, 1910—Chaco and Misiones; idem, Bol. Soc. Physis, 1, p. 251, 1913—Chaco Argentino and Misiones; Bertoni, Anal. Soc. Cient. Arg., 75, p. 68, 1913—Misiones; idem, Faun. Parag., p. 35, 1914—Alto Paraná, Paraguay; Ménégau, Rev. Franç. d'Orn., 9, p. 24, 1917—Poconé, Matto Grosso.
- Craz sulcirostris* Ihering, Rev. Mus. Paul., 3, p. 409, 1899—São Paulo (descr. of female; type in Museu Paulista); idem, l.c., 6, p. 347, 1905 (crit.).
- Craz alector* (not of Linnaeus) Burmeister, Syst. Uebers. Th. Bras., 3, p. 344, 1856—part, descr. of female, interior of Brazil to Paraguay; idem, Journ. Orn., 8, p. 260, 1860—Argentina; idem, Reise La Plata St., 2, p. 500, 1861—Gran Chaco, Misiones, and supposedly also "north of Tucumán."
- Craz sclateri sclateri* Naumburg, Bull. Amer. Mus. N. H., 60, p. 62, 1930—Agua Verde, Matto Grosso; Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 374, 1934—Descalvados, Matto Grosso.
- Craz fasciolata fasciolata* Peters, Bds. World, 2, p. 11, 1934—"Pará" south to Matto Grosso and Goyáz.
- Craz fasciolata sclateri* Peters, Bds. World, 2, p. 11, 1934—part, Paraguay, São Paulo, Argentine Chaco, and Misiones; Krieg and Schuhmacher, Verh. Orn. Ges. Bay., 21, p. 15, 1936—northeastern Paraguay (habits).

Range.—Interior of Brazil, from western São Paulo (Ituverava, Itapura, Barretos, Rio Grande) through Matto Grosso, Goyáz, and western Minas Geraes (Pirapora, Rio São Francisco) north probably

banded curassow. On the other hand, its occurrence in a wild state on the north bank of the Amazon, at Obidos (whence we have several typical *C. alector*), appears to us highly questionable, and we venture to suggest that the specimen mentioned by Pinto is more likely to have come from the south side of the Amazon.

to the Amazon; Paraguay;¹ and the adjacent districts of Misiones and the Argentine Chaco.²

Field Museum Collection.—2: Brazil (Fazenda Capão Bonita, Vaccaria, Matto Grosso, 2).

Conover Collection.—10: Brazil (Fazenda Capão Bonita, Vaccaria, Matto Grosso, 4); Paraguay (Chaco side of the Paraguay River, 2; Riacho Caballero, 45 km. west of Puerto Rosario, 2; 235 km. west on the Riacho Negro, Chaco, 2).

****Crax fasciolata grayi* Ogilvie-Grant.³ GRAY'S CURASSOW.**

Crax grayi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 480, 1893—"South America" (descr. of female; cotypes in British Museum examined); idem, Handb. Game-Bds., 2, p. 206, pl. 27, 1897 (monog.).

Crax sclateri G. R. Gray, List Bds. Brit. Mus., 5, p. 14, 1867—part, spec. c, d, "S. America, varieties"; Burmeister, Proc. Zool. Soc. Lond., 1871, p. 701—Santa Cruz de la Sierra, Bolivia; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 82, 1930—Curiche de San Ramón, Chiquitos, Bolivia.

Crax fasciolata (not of Spix) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 476, 1893—part, Bolivia; idem, Handb. Game-Bds., 2, p. 202, 1897—part, Bolivia.

Crax fasciolata sclateri Peters, Bds. World, 2, p. 11, 1934—part, Bolivia.

¹ According to Aplin (Ibis, 1894, p. 203), "*C. sclateri* is found in small numbers on the Rio Negro, Uruguay," but as no specimen was obtained, and no other observer ever met with a curassow in Uruguay, the record is open to doubt and probably refers to *Penelope o. obscura*.

² Females from Matto Grosso, Goyás, and one each from the Argentine Chaco (Rio de Oro) and Paraguay (near Concepción) agree well together, notably in having the lower back and rump blackish or dusky, regularly barred with whitish or buff. There is some individual variation in the width of the light bands on the upper wing and tail coverts as well as in the amount of white spotting on the throat. The presence of a narrow groove on each side of the beak from the nasal fossa to near its point, which gave rise to the description of *C. sulcirostris*, is a purely individual feature (cf. Hellmayr, Nov. Zool., 15, p. 95, 1908).

Additional material examined.—Brazil: Leopoldina, Rio Araguaya, 18; Rio Cabaçal, Matto Grosso, 3; Caiçara, Matto Grosso, 1; Rio Guaporé, below Tres Barras, Matto Grosso, 2; "Amazonas," 1.—Paraguay: Island near Concepción, 1; Villa Rica, 1.—Argentina: Rio de Oro, Chaco Austral, 1.

³ *Crax fasciolata grayi* Ogilvie-Grant: Male apparently indistinguishable from *C. f. fasciolata*; female with lower back and rump ochraceous-buff, either practically uniform or narrowly banded with dusky; wing coverts more broadly barred with ochraceous-buff, sometimes even nearly plain ochraceous-buff; buffy white bars on rectrices much wider (10 against 2–5 mm.).

This little-known form requires further investigation. It was described from two females of unknown origin in the British Museum, which one of us has recently examined. Three females from Buenavista, Bolivia, in the Conover Collection seem to be referable to the same form, although direct comparison with the type could not be made. A male from Chiquitos (Curiche de San Ramón) in the Munich Museum is evidently not separable from Goyás specimens (*C. f. fasciolata*).

Range.—Eastern Bolivia (Buenavista, Santa Cruz; Curiche de San Ramón, Chiquitos; San Carlos, Santa Cruz).

Conover Collection.—6: Bolivia (Buenavista, Santa Cruz, 5; San Carlos, Santa Cruz, 1).

****Crax globulosa* Spix. WATTLED CURASSOW.**

(?)*Crax carunculata* Temminck,¹ Hist. Nat. Fig. Gall., 3, pp. 44, 690, pl. 4, fig. 3, 1815—"Brésil" (type in the Lisbon Museum).

Crax globulosa Spix, Av. Spec. Nov. Bras., 2, p. 50, pls. 65 (male), 66 (female), 1825—"in sylvis fluminis Solimöens," Brazil (cotypes in Munich and Frankfurt museums examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 683, 1906); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 515—Upper Amazon, Pebas, and Rio Napo (descr.); Pelzeln, Orn. Bras., 3, p. 288, 1870—Rio Madeira (Borba, Cachoeira da Bananeira, Piori, Salto Theotonio), Rio Guaporé (Volta do Gentio), Barra do Rio Negro, and Rio Amazonas, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 307—Rio Marañón and Rio Ucayali, Peru; Sclater, Trans. Zool. Soc. Lond., 9, p. 279, pl. 46 (male, female), 1875—Rio Napo and Pebas (descr.); (?)idem, l.c., 10, p. 544, pl. 91, 1879 (aviary bird); Taczanowski, Orn. Pér., 3, p. 264, 1886—Peru (Pebas, Sarayacu); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 482, 1893—Samiría, Peru; idem, Handb. Game-Bds., 2, p. 208, 1897—Upper Amazonia (monog.); Hellmayr, Nov. Zool., 17, p. 417, 1910—Rio Madeira; Chapman, Bull. Amer. Mus. N. H., 55, p. 152, 1926—Rio Napo, Ecuador; Naumburg, l.c., 60, p. 62, 1930—Matto Grosso; Peters, Bds. World, 2, p. 11, 1934 (monog.).

Crax yarrellii E. T. Bennett, Gardens and Menag. Zool. Soc., 2, p. 227, 1831—Rio Marañón, Peru (type lost, formerly in collection of Zoological Society, London); Jardine and Selby, Illust. Orn., (n.s.), Part 1, pl. 6, 1837 (fig. of type; = adult male).

Crax globosa (lapsu) Burmeister, Syst. Uebers. Th. Bras., 3, p. 346, 1856 (ex Spix).

Crax globicera (not of Linnaeus) Bates, Naturalist on the Amazon, 2, pp. 112, 282, 292, 1863—Island of Catuá, near Ega, Rio Solimões.

Crax carunculata (not of Temminck?)² Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 517 (descr. of male and female; excl. of synonym *C. rubrirostris* and *C. blumenbachii*); Sclater, Trans. Zool. Soc. Lond., 9, p. 279, pl. 47 (male, female), 1875 (monog.); Allen, Bull. Amer. Mus. N. H., 2, p. 106, 1889—lower Beni, Bolivia; Ogilvie-Grant, Cat. Bds. Brit. Mus.,

¹ This species, based on a single specimen—judging by the chestnut abdomen, of female sex—from "Brazil" in the Lisbon Museum, may be the same as *C. globulosa*. We hesitate, however, to employ Temminck's name, since not one of the many females (with rufous belly) examined by us has any trace of the lappets at the base of the lower mandible shown in his drawing. The type, if still extant, should be re-examined.

² *Crax carunculata* of Sclater, Salvin, and Ogilvie-Grant is unquestionably the same as *C. globulosa*, whatever Temminck's type might have been. The series of males from the Rio Solimões shows every gradation from birds without any swelling on the bill to two with large swellings at the base of the culmen and distinct wattles on the lower mandible. The color of the basal portion of the

22, p. 481, 1893—part (descr., excl. of range); idem, Handb. Game-Bds., 2, p. 206, 1897—part (descr., excl. of range).

Range.—Upper Amazonia, from eastern Ecuador (Rio Napo) and northeastern Peru east to Manáos and the Rio Madeira, south to northern Matto Grosso (Rio Guaporé) and northeastern Bolivia (lower Beni).

Conover Collection.—12: Brazil, Rio Solimões (Ilha do Comprido, 12).

****Crax alberti* Fraser.¹ PRINCE ALBERT'S WATTLED CURASSOW.**

Crax alberti Fraser, Proc. Zool. Soc. Lond., 18, "1850," p. 246, pl. 27 (=male), pub. Jan. 24, 1852—"types living in Lord Derby's aviaries at Knowsley," origin unknown;² Sclater and Salvin, l.c., 1870, p. 517—New Granada (monog.); Sclater, Trans. Zool. Soc. Lond., 9, p. 280, pl. 48 (male, female), 1875—Santa Marta and "Bogotá," Colombia (descr.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 483, 1893—Bogotá, Colombia; idem, Handb. Game-Bds., 2, p. 211, 1897—Colombia; Bangs, Proc. Biol. Soc. Wash., 12, p. 132, 1898—Santa Marta; Allen, Bull. Amer. Mus. N. H., 13, p. 127, 1900—Bonda and Naránjo, Santa Marta region; Chapman, Bull. Amer. Mus. N. H., 36, p. 194, 1917—west of Honda, Magdalena Valley, Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 176, 1922—Don Diego and San Lorenzo, Santa Marta region (no spec. obtained); Darlington, Bull. Mus. Comp. Zool., 71, p. 371, 1931—Rio Frio and Aracataca, Magdalena, Colombia.

Crax mikani Pelzeln, Orn. Bras., 3, p. 343, 1870—"Brazil," errore (part, descr. of female; spec. in Vienna Museum examined).

Crax viridirostris Sclater, Trans. Zool. Soc. Lond., 9, p. 282, June, 1875 (based on a living male of unknown origin in the Amsterdam Zoo; type now in

bill is yellow in those with swellings, while the cere is practically red in the others. Natterer, in his notes on freshly killed specimens, describes the cere and appendages as bright red.

Additional specimens examined.—Brazil: Rio Solimões, 3; Manáos, 2; Volta do Gentio, Rio Guaporé, Matto Grosso, 2.

¹ *Crax alberti* Fraser appears to be specifically distinct from *C. daubentoni*. The male not only differs by the total absence of any swelling at the base of the maxilla and the coloration of the bill (basal half, including wattles of lower mandible, slaty blue or slate greenish instead of dark wax yellow; apical half ivory yellow), but also by having merely a small bare postocular spot, whereas the entire region between eye and cere is thickly beset with velvety plumes. The female, in addition to the extensive feathering on the sides of the head, may be distinguished from that of *daubentoni* by its very different coloration: the wings, back, rump, and tail feathers being regularly banded with white; the six outer primaries, primary coverts, alula, and edge of the wing bright rufous; under wing coverts, breast, and sides likewise bright rufous, paling into ochraceous on lower breast and to buff on vent and crissum.

Among other material the senior author has examined two males and one female from Bogotá (G. Crowther) and a female from Puerto Valdivia, Antioquia (A. E. Pratt), in the British Museum.

² The alleged "female," figured on pl. 28, belongs to another species, *C. r. rubra*.

the Salvin-Godman Collection, British Museum); idem, Proc. Zool. Soc. Lond., 1876, p. 463—Cartagena, Colombia (male and female received alive).

Crax alberti alberti Peters, Bds. World, 2, p. 11, 1934—Colombia (crit.).

Range.—Tropical zone of eastern Colombia, from Cartagena east to the Santa Marta region and south to Antioquia (Puerto Valdivia) and the Magdalena Valley (Honda); also found in native "Bogotá" collections.¹

Conover Collection.—1: Colombia (La Tigrera, Santa Marta, 1).

****Crax daubentoni* G. R. Gray.² DAUBENTON'S WATTLED CURASSOW.**

Crax daubentoni G. R. Gray, List Bds. Brit. Mus., 5, (Gallinae), p. 15, 1867—"Central America?"=Venezuela (descr. of male and female; cotypes in British Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 516—near Caracas, Venezuela; Sclater, l.c., 1870, p. 671—Tucacas, Venezuela; idem, l.c., 1871, p. 624—Tucacas; Summerhayes, l.c., 1874, p. 420—littoral of Venezuela, near Aroa, to the foot of the mountains; Sclater, Trans. Zool. Soc. Lond., 9, p. 276, pls. 41 (male), 42 (female), 1875—forest region of Venezuela (monog.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 482, 1893—Venezuela; idem, Handb. Game-Bds., 2, p. 209, 1897—Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 165, 1901—five miles east of San Julián, near La Guaira; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 28, 1922—Rio Cogollo, above Lake Maracaibo; Delacour, Ibis, 1923, p. 138—San Fernando and Apure, Venezuela.

Crax mikani Pelzeln, Orn. Bras., 3, p. 343, 1870—"Brazil," errore (part, descr. of "male"=female; type in Vienna Museum examined).

Crax pinima (not of Pelzeln) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 518 (crit.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 477, 1893—part, spec. a, South America.

Crax incommoda Sclater,³ Proc. Zool. Soc. Lond., 1872, p. 690—South America (type in British Museum examined); idem, Trans. Zool. Soc. Lond., 9, p. 281, pl. 49, 1875 (fig. of type;=female).

¹ In males of this species, the knob and wattles at the base of the bill vary from pale bluish to greenish (*viridirostris*), but the divergency appears to be purely individual. The female bird of *C. mikani* Pelzeln is a normally colored specimen of the present form.

² *Crax aldrovandi* Reichenbach (Vollst. Naturg. Tauben, pp. 134, 136, 1862) appears to us undeterminable. Neither Aldrovandi's figure of a tailless bird nor Daubenton's "Hocco Faisan de la Guiane" (Pl. Enl., pl. 86) can be identified with certainty, whereas Willoughby's "Mituporanga" consists of various ambiguous components. We see, therefore, no reason to give up Gray's name accompanied by adequate descriptions, the originals of which are still preserved in the British Museum.

³ The type, a female, received from the Zoological Society's Gardens, where it had lived from May 25, 1870, to July 22, 1873, turns out to be *C. daubentoni*. The naked orbital ring is very much narrower than in *C. fasciolata* (*sclateri*), and

Craz alberti daubentoni Peters, Bds. World, 2, p. 11, 1934—northern Venezuela, "British Guiana," and "Surinam."

Range.—Tropical zone of northern Venezuela, from La Guaira (below Caracas) west to Lake Maracaibo, south to the Rio Apure.

Conover Collection.—1: Venezuela (Rio Cogollo, 1).

***Craz annulata* Todd.¹ ANNULATED CURASSOW.**

Craz annulata Todd, Proc. Biol. Soc. Wash., 28, p. 170, Nov. 29, 1915—Don Diego, Colombia (type in Carnegie Museum, Pittsburgh; descr. of female); Todd and Carriker, Ann. Carnegie Mus., 14, p. 175, 1922—Don Diego (descr. of male and female); Todd, Proc. Biol. Soc. Wash., 45, p. 210, 1932 (crit.).

Craz incommoda (not of Sclater, 1872) Sclater, Trans. Zool. Soc. Lond., 10, p. 544, pl. 93, 1879—"South America."

Craz pinima (not of Pelzeln) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 477, 1893—part, spec. b, c.

Range.—Tropical zone of northern Colombia (Don Diego, Santa Marta region).

****Craz rubra rubra* Linnaeus. MEXICAN CURASSOW.**

Craz rubra Linnaeus, Syst. Nat., 10th ed., 1, p. 157, 1758—based on "The Red Peruvian Hen" Albin, Nat. Hist. Bds., 3, p. 37, pl. 40, "in America" (descr.

separated in front from the cere by a broad stripe of velvety feathers. It has nothing whatever in common with *C. pinima*. From other females of *daubentoni* the type merely differs by having distinct, narrow ($\frac{1}{2}$ to $\frac{3}{4}$ mm. wide), white transverse bars on upper wing coverts, secondaries, and outer webs of primaries, and similar, though not continuous, cross-markings on the upper tail coverts. However, the female cotype of *daubentoni* (Brit. Mus. Reg. No. 58.4.27.2, ex coll. Lidth de Jeude) has likewise white bars, though shorter and less distinct ones, on the wing coverts, marginal spots or edges of white on the outer vane of the primaries, and traces of apical fringes to some of the upper tail coverts. The type of *incommoda* has hardly any swelling at the base of the culmen, which is more or less suggested in all other females. Otherwise it is of typical coloration: throat and foreneck plain black; breast and thighs black regularly barred with white; flanks, vent, and crissum white; curled crest-feathers black with two white bars; tail broadly tipped with white; bill black, apical half horn brown. Hellmayr could not find the second specimen figured in Trans. Zool. Soc. Lond., 10, pl. 93, 1879.

The British Museum has an adult male of *C. daubentoni* from Montañas da Limones (alt. 150 ft.), below Mérida.

¹ *Craz annulata* Todd, a very imperfectly known species, needs further investigation. The male is described as being a miniature of *C. alberti*. Judging from a photo of its head, which we owe to the kindness of Mr. R. M. de Schauensee, it resembles *alberti* in the absence of wattles at the base of the maxilla, but has the bare space round the eye much more extensive, this area being separated from the cere by a row of small pin-like feathers, exactly as in *C. daubentoni*. The white bars on the crest-feathers and the whitish margins to the lower breast and wing coverts probably indicate immaturity. A female from "New Granada" (Brit. Mus. Reg. No. 56.11.5.17), purchased of J. Verreaux, which seems to belong here, is very much like *C. f. fasciolata* (sclateri) in general coloration, but differs in having the rump nearly wholly blackish with merely some dot-like light apical spots; mere suggestions of narrow interrupted whitish cross-marks to the upper tail

of female; type living in Richmond Park);¹ Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 301, 1861—Lion Hill, Panama.

Craz globicera Linnaeus, Syst. Nat., 12th ed., 1, p. 270, 1766—"Brasilia, Curaçao," errore (in part);² Sclater, Proc. Zool. Soc. Lond., 28, p. 253, 1860—southeastern Mexico; Taylor, Ibis, 1860, p. 311—Honduras (Tigre Island, Lake of Yojoa, etc.); Salvin, Ibis, 1861, p. 143—Vera Paz, Guatemala; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 12, 1863—Panama Railroad; idem, l.c., 9, p. 139, 1868—San José, Costa Rica; Frantzius, Journ. Orn., 17, p. 373, 1869—Rio Sarapiquí, Costa Rica; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 513—Mexico (Tehuantepec, Vera Cruz) to Panama (monog.); idem, l.c., 1870, p. 513—Mexico (Tehuantepec, Vera Cruz) to Panama (monog.); idem, l.c., 1870, p. 838—Honduras; Sumichrast, La Naturaleza, 2, p. 137, 1871—Vera Cruz, Mexico; Sclater, Trans. Zool. Soc. Lond., 9, p. 274, pl. 40 (male, female), 1875 (monog.); idem, l.c., 10, p. 543, pl. 89 (female), 1879—Panama and Costa Rica (crit.); Lawrence, Bull. U. S. Nat. Mus., 4, p. 44, 1876—Tehuantepec, Mexico; Boucard, Proc. Zool. Soc. Lond., 1878, p. 42—Costa Rica (San Carlos, Volcan de Irazú, Naránjo); idem, l.c., 1883, p. 459—Yucatan; Nutting, Proc. U. S. Nat. Mus., 5, p. 408, 1882—La Palma, Nicoya, Costa Rica; idem, l.c., 6, p. 408, 1884—Los Sábalos, Nicaragua; Ferrariperez, l.c., 9, p. 175, 1886—Vera Cruz; Richmond, l.c., 16, p. 524, 1893—Rio Frio, Costa Rica, and Rio Escondido, Nicaragua; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 478, 1893—part, spec. a-f, k-r, Mexico (Sierra Madre above Victoria, Tamaulipas; Misantla, Vera Cruz; Chimalapa, Tehuantepec; Yucatan) and Guatemala (Savanna Grande); Underwood, Ibis, 1896, p. 448—Miravalles, Costa Rica; Ogilvie-Grant, Handb. Game-Bds., 2, p. 203, 1897 (monog., excl. of Cozumel Island); Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—Naránjo and Santo Tomás, Guatemala; Salvin and Godman, Biol. Centr.-Amer.; Aves, 3, p. 271, 1902—Mexico (excl. of Cozumel) to Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 77, 1907—Los Amates, Guatemala; Phillips, Auk, 28,

coverts; the light bands on the tail reduced in width and restricted to the middle pair; and the seven external primaries, primary coverts, edge of wing, and under wing coverts banded and variegated with cinnamon-buff, while the inner webs of the remiges are broadly barred with cinnamon-rufous. The coloration of the wings suggests *C. alberti*, though, of course, the rufescence is much less pronounced. Aside from the pattern of the outer primaries and adjoining parts, this bird answers pretty well to Todd's description of the female and pl. 93 in Trans. Zool. Soc. Lond., 10, 1879, whose original Hellmayr failed to find in the British Museum. The bare orbital ring is about as extensive as in the female of *C. f. fasciolata*, but in accordance with a photo of the type of *C. annulata*, kindly supplied by Mr. Todd, the space between eye and cere is beset with numerous small pin-like plumules. Wing, (male, Don Diego) 350, (female, Don Diego) 348, (female, New Granada) 350; tail, 319, 317, 320.

From the scanty material available it is well-nigh impossible to pass any final judgment on the merits of *C. annulata*, which may, however, prove to be the Colombian representative of *C. daubentoni*.

¹ Albin's figure, though pretty poor, seems to represent the female of the present species. As type locality we may regard (western) Ecuador, which, at Albin's time, formed part of Peru.

² While some of the references quoted by Linnaeus appear to pertain here, others are extremely ambiguous.

p. 74, 1911—Guiaves, Tamaulipas, Mexico; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 195, 1922—Jesusito, Darien, Panama; Chapman, Bull. Amer. Mus. N. H., 55, p. 151, 1926—Chongon Hills, Ecuador; Griscom, Amer. Mus. Nov., 235, p. 7, 1926—Chunyaxche and Palmul, Yucatan; idem, Bull. Mus. Comp. Zool., 72, p. 318, 1932—Permé and Obaldia, Panama (crit.).

Craz albini Lesson, Traité d'Orn., p. 484, April, 1831—based on "The Curassow Hen" Albin, Nat. Hist. Bds., 2, pl. 32 (female), an aviary bird of unknown origin.

Craz temminckii Tschudi, Arch. Naturg., 10, (1), p. 308, 1844—based on "The Red Peruvian Hen" Albin (Nat. Hist. Bds., 3, p. 37, pl. 40) and *Craz rubra* Temminck (Hist. Nat. Fig. Gall., 3, pp. 21, 687, 1815), etc.; idem, Unters. Faun. Peru., Aves, p. 287, 1846—western Mexico (descr. male and female; crit.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 347, 1856—"Peru and eastern slope of the Cordilleras."

(?) *Craz pseudalector* Reichenbach, Vollst. Naturg. Tauben, p. 131, pl. 174, fig. 1516, 1862 (based probably on one of the references quoted by the author, account fairly confused).

(?) *Craz edwardsii* Reichenbach, Vollst. Naturg. Tauben, p. 134, 1862—based on "The Curasso-Bird" Edwards, Glean. Nat. Hist., 2, p. 181, pl. 295, fig. 1, an aviary bird of unknown origin.

Craz alector (not of Linnaeus) Sclater and Salvin, Ibis, 1859, p. 223—Central America; Moore, Proc. Zool. Soc. Lond., 27, p. 61, 1859—Petén and ridges of Chilomo, Guatemala.

Craz sp. Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 371—Panama Railroad.

Craz panamensis Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 479, 1893—"southern Nicaragua and Costa Rica to the United States of Colombia" (Valsa, Costa Rica, and Lion Hill, Panama; no type specified); idem, Handb. Game-Bds., 2, p. 205, 1897 (monog.); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 9, 1899—Rio Lara, Darien, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 273, 1902—Nicaragua to Panama; Hartert, Nov. Zool., 9, p. 601, 1902—Paramba and Bulún, Ecuador (crit.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 21, 1902—Boquete, Chiriquí; idem, Auk, 24, p. 290, 1907—El Pózo de Río Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 382, 1910—Guácimo, Costa Rica; Chapman, Bull. Amer. Mus. N. H., 36, p. 194, 1917—Baudo and Bagado, Chocó, Colombia; Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—Costa Rica (Squirres) and Nicaragua (Zapatera); Miller and Griscom, Amer. Mus. Nov., 25, p. 7, 1921 (crit.).

Craz alberti Fraser, Proc. Zool. Soc. Lond., 18, "1850," p. 246, pl. 28, 1852 (part, descr. of female).

Craz hecki Reichenow, Journ. Orn., 42, p. 231, pl. 2, 1894 (based on a female aviary bird in the Berlin Zoo, origin unknown; type now in Berlin Museum).

Craz chapmani Nelson, Proc. Biol. Soc. Wash., 14, p. 170, 1901—Puerto Morelos, Yucatan (type in U. S. National Museum;=female); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 273, 1902 (ex Nelson).

Craz globicera globicera Austin, Bull. Mus. Comp. Zool., 69, p. 369, 1929—Augustine, British Honduras; Peters, l.c., p. 403, 1929—Lancetilla, Honduras; idem, l.c., 71, p. 297, 1931—Almirante Bay, Panama; Griscom, Bull. Amer. Mus. N. H., 64, p. 99, 1932—Guatemala; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 301, 1932—Honduras; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 147, 1938—Puerto del Triunfo, El Salvador.

Craz rubra rubra Peters, Bds. World, 2, p. 12, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 303, 1935—Panama; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 10, 1935—Uaxactun, Petén, Guatemala.

Range.—From Mexico (southern Tamaulipas and the Isthmus of Tehuantepec) south throughout Central America to Panama, western Colombia (Baudo, Bagado), and western Ecuador (Bulón, Prov. Esmeraldas; Paramba, Prov. Imbabura; Chongon Hills, Prov. Guayas).¹

Field Museum Collection.—7: Guatemala (Chapulco, 4); Nicaragua (San Gerónimo, 2); Costa Rica (Orósi, 1).

Conover Collection.—17: Mexico, Chiapas, Escuintla (Mt. Madre Vieja, 2; Acacoyagua, 1); Guatemala (Dept. Izabal, Escobas, 1); Honduras (Catacombas, Cortes, 1); Costa Rica (Guanacaste, Miravalles, 2; Volcan Turrialba, La Iberia, 2); Panama (Darien, Port Obaldia, 8).

***Craz rubra griscomi* Nelson.² COZUMEL ISLAND CURASSOW.**

Craz globicera griscomi Nelson, Proc. Biol. Soc. Wash., 39, p. 106, Aug. 25, 1926—Cozumel Island, off Yucatan (type in U. S. National Museum).

Craz globicera (not of Linnaeus) Ridgway, Proc. U. S. Nat. Mus., 8, p. 581, 1885—Cozumel Island; Salvin, Ibis, 1889, p. 378—Cozumel; idem, Ibis, 1890, p. 89—Cozumel; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 478, 1893—part, spec. g-i, Cozumel; idem, Handb. Game-Bds., 2, p. 203, 1897—part, Cozumel; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 271, 1902—part, Cozumel.

Craz rubra griscomi Peters, Bds. World, 2, p. 12, 1934—Cozumel.

Range.—Cozumel Island, off the coast of Yucatan.

¹ Both *C. panamensis* and *C. chapmani*, the latter based upon a single female, turned out to be individual variants of the widespread Mexican Curassow, as has been pointed out by Miller and Griscom. The interrelationship between *C. rubra* and the South American species with basal knob and wattles (*C. globulosa*, *C. alberti*) needs further investigation with the help of long series, and it is quite possible that they will eventually prove to be merely geographical races of a single specific entity.

² *Craz rubra griscomi* Nelson: Similar to *C. r. rubra*, but smaller, females with more white in the crest-feathers and with broader white bars on the inner primaries and the secondaries. Wing, (male) 356, (female) 340; tail, 325.

Genus **PENELOPE** Merrem

Penelope Merrem, Av. Rar. Icon. et Descr., fasc. 2, p. 39, 1786—type, by subs. desig. (Lesson, Man. d'Orn.; 2, p. 214, 1828), *Penelope marail* "Linn." [= Gmelin] = *Penelope jacupema* Merrem = *Phasianus marail* P. L. S. Müller.

Salpiza Wagler, Isis, 1832, col. 1226—type, by subs. desig. (Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 521), *Penelope pileata* Wagler.

Stegnolaema Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 521—type, by monotypy, *Ortalia montagnii* Bonaparte.

Salpizusa Heine and Reichenow, Nomencl. Mus. Hein. Orn., p. 301, 1887—new name for *Salpiza* Wagler.

***Penelope marail** (P. L. S. Müller). CAYENNE GUAN.

Phasianus marail P. L. S. Müller, Natursyst., Suppl., p. 125, 1776—based on "Le Marail" Buffon, Hist. Nat. Ois., 2, p. 390, 1771; Cayenne.

Penelope jacupema Merrem, Av. Rar. Icon. et Descr., fasc. 2, p. 39, pl. 11, 1786—"Guyana" (based on an aviary bird); idem, Beytr. Bes. Gesch. Vögel, Heft 2, pl. 11, 1786.¹

Penelope marail Gmelin, Syst. Nat., 1, (2), p. 734, 1789—based on "Faisan verdâtre, de Cayenne" Daubenton (Pl. Enl., pl. 338)² and "Le Marail" Buffon (Hist. Nat. Ois., 2, p. 390), Cayenne; Wagler, Isis, 1830, col. 1110—Cayenne and Guiana; Berlepsch, Nov. Zool., 15, p. 297, 1908—Cayenne and Ipousin, Approuague River, French Guiana (crit.); Snethlage, Bol. Mus. Goeldi, 8, p. 55, 1914—Rio Jamundá (Faro), Brazil; Beebe, Trop. Wild Life, 1, p. 127, 1917—Bartica, British Guiana; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 40, 1918—Lelydorp and Javaweg, Surinam; Todd and Carriker, Ann. Carnegie Mus., 14, p. 175, 1922—"Santa Marta" (occurrence denied); Peters, Bds. World, 2, p. 13, 1934—part, eastern Venezuela, Guianas, and eastern Brazil.

Penelope jacupeba Spix, Av. Spec. Nov. Bras., 2, p. 54, pl. 71, 1825—"in sylvis Parae," Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 689, 1906); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 494, 1893—"Santa Marta" and British Guiana (Quonga, Camacusa, Bartica Grove, Demerara); idem, Handb. Game-Bds., 2, p. 223, 1897 (monog.); Berlepsch and Hartert, Nov. Zool., 9, p. 120, 1902—La Prición, Caura River, Venezuela; Ihering, Cat. Faun. Braz., 1, p. 13, 1907 (range); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 350, 1916—Caura River.

Salpiza marail Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 745, 1849—coastal forests.

¹ Though pretty poor, Merrem's plate in conjunction with the description, which expressly mentions the whitish edges to the chest and the green gloss of the plumage, cannot well refer to any other species. His failure to indicate the rufescent belly is hardly of importance in view of the fact that description and figure were made from a living specimen.

² Daubenton's plate is quite recognizable.

Penelope greayi Gray, Proc. Zool. Soc. Lond., 1866, p. 206, pl. 22 (based on an aviary bird said to be from "Santa Marta"; type, now in British Museum, examined);¹ Sclater and Salvin, l.c., 1870, p. 523—"Santa Marta" (crit.); Salvin, Ibis, 1886, p. 174—British Guiana (Bartica Grove, Camacusa, "Roraima, 3500 to 5000 ft.");² W. L. Sclater, Ibis, 1887, p. 317—Maccas-seema, Pomeroon River.

Penelope marial [sic] Chubb, Bds. Brit. Guiana, 1, p. 25, 1916—many localities.

Range.—French, Dutch, and British Guiana, west to eastern Venezuela (La Prición, Caura Valley), south to the north bank of the lower Amazon, Brazil.³

Field Museum Collection.—2: British Guiana (Berbice, 1; unspecified, 1).

Conover Collection.—8: British Guiana (Oko Mountains, Essequibo, 1); Brazil (Lagõa Cuipeua, near Obidos, 4; Rio Counany, Pará, 1; Cavarí Island, Uassa Swamp, Pará, 1; Igarapé Arriba, near Itacoatiará, 1).

****Penelope purpurascens*⁴ *purpurascens* Wagler. PURPLE GUAN.**

Penelope purpurascens Wagler, Isis, 1830, col. 1110—Mexico, probably State of Vera Cruz (type in Munich Museum examined); Moore, Proc. Zool. Soc. Lond., 27, p. 61, 1859—Honduras; Sclater, l.c., pp. 369, 391, 1859—vicinity of Jalapa, Vera Cruz, and Rio Grande, Oaxaca, Mexico; Sclater and Salvin, Ibis, 1859, p. 223—Central America; Salvin, Ibis, 1861, p. 145—Vera Paz, Guatemala; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 522—Mexico (Mazatlan, Tonila, Oaxaca, Jalapa), Guatemala, and Honduras (monog.); Lawrence, Mem. Bost. Soc. N. H., 2, p. 306, 1874—Mazatlan and Tonila, Sinaloa; idem, Bull. U. S. Nat. Mus., 4, p. 45, 1876—Tehuantepec (Santa Efigenia), Oaxaca; Boucard, Proc. Zool. Soc. Lond.,

¹ The colored figure corresponds very well to Cayenne specimens. The locality is doubtless erroneous. Hellmayr has lately examined the type and found it perfectly typical of *marail*.

² No Roraima specimens of Whitely's appear to be extant.

³ Specimens from French Guiana, British Guiana, and northern Brazil agree well, and a single female from Venezuela (Caura River) is not appreciably different. An excellent account of this species and its habits is given under the vernacular caption "Le Maraye" by Bajon (Mém. Hist. Cayenne et Guiane Franç., 1, pp. 383–397, pls. 3, 4, 1777), and Sonnini de Manoncour (Observ. Phys. Hist. Nat. et les Arts, 5, Part 4, pp. 345–350, April, 1775) also published some notes of interest. Though the latter author errs in considering "L'Yacou" identical with the "Marail," his description of male and female (p. 347) plainly shows that he had *P. marail* before him.

Additional material examined.—Venezuela: La Prición, Caura, 1.—British Guiana: Waremia River, 5; Camacabra Creek, 3; Supenaam River, 2; Camacusa, 4; Bartica Grove, 4; Ituribisci River, 3; Quonga, 2; Great Savannas, 4; Moraballi, Essequibo River, 2; Ourumee, 1.—French Guiana: Cayenne, 2; Ipousin, Approuague River, 3.—Brazil: "Pará," 1.

⁴ *Penelope purpurascens* is probably conspecific with *P. jacquacu*. Cf. Hellmayr and Conover, Auk, 49, p. 334, 1932.

1883, p. 459—Yak-Jonat, Yucatan; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 175, 1886—Jalapa, Vera Cruz; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 496, 1893—Mexico (Sierra Madre, above Ciudad Victoria, Tamaulipas; Santa Anna River, Jalapa, Vera Cruz; Atlixco, Mexico; Villa Alta, Oaxaca; Chimalapa, Tehuantepec; Yalahau, Yucatan) and Guatemala (Vera Paz, Retalhuleu, Savana Grande, Volcan de Fuego, Medio Monte); idem, Handb. Game-Bds., 2, p. 224, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 276, 1902—Mexico to Honduras; Miller, Bull. Amer. Mus. N. H., 21, p. 343, 1905—Escuinapa and Arroyo de Limones, Sinaloa; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 77, 1907—Los Amates, Guatemala; Phillips, Auk, 28, p. 74, 1911—Guiáves, Tamaulipas; Peters, Bull. Mus. Comp. Zool., 69, p. 403, 1929—Lancetilla, Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 301, 1932—Lancetilla.

Penelope cristata (not *Meleagris cristata* Linnaeus) Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—Naránjo and Santo Tomás, Guatemala.

Penelope purpurascens purpurascens Hellmayr and Conover, Auk, 49, p. 331, 1932 (range); Griscom, Bull. Amer. Mus. N. H., 64, p. 100, 1932—Finca Sepacuite, Guatemala; Peters, Bds. World, 2, p. 12, 1934—Mexico to Honduras; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 10, 1935—Uxactun and Sacchich, Petén, Guatemala; Griscom, Auk, 54, p. 192, 1937—Omiteme, Guerrero; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 146, 1938—Puerto del Triunfo, El Salvador.

Range.—Tropical zone of Mexico from Sinaloa and Tamaulipas southwards through Guatemala to Honduras.

Field Museum Collection.—9: Guatemala (Las Amates, Izabal, 7; Concepción del Mar, Escuintla, 2).

Conover Collection.—15: Mexico (Rancho Santa Barbara, Sinaloa, 1; Rio Las Cañas, Nayarit, 3; Tutla, Oaxaca, 3; Mt. Madre Vieja, Escuintla, Chiapas, 2); Guatemala (Capetillo, 1; Quebrada, Izabal, 1); Honduras, Tegucigalpa (San Marcos de Guaymaca, 1; Alto Cantoral, 1; Cantoral, 2).

****Penelope purpurascens aequatorialis* Salvadori and Festa.¹**
EQUATORIAL GUAN.

Penelope aequatorialis Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 38, 1900—Rio Peripa, Ecuador (type in Turin Museum); Chubb, Ibis, 1919, p. 16—part, Colombia, Ecuador, etc. (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Gualea and below Nanegal,

¹ *Penelope purpurascens aequatorialis* Salvadori and Festa differs from the nominate race by chestnut rump and upper tail coverts, rufous abdomen, and the presence of white lateral edges on hind neck, mantle, and upper wing coverts, not to mention several minor divergencies.

There is no constant difference between birds from western Ecuador and Colombia (Chocó) on one side, and those from Panama and Costa Rica on the other. Nicaraguan specimens, which we have not seen, are stated to verge in the direction of typical *purpurascens*.

Additional material examined.—Costa Rica, 8; Panama, 6; Chocó, Colombia, 1; Bulún, Prov. Esmeraldas, Ecuador, 1; Rio Peripa, Ecuador, 1.

- Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 153, 1926 Gualea, below Mindo, above Bucay, and El Chiral, Ecuador.
- Penelope jacucaca* (not of Spix) Sclater, Proc. Zool. Soc. Lond., 28, p. 72, 1860—Pallatanga, Ecuador (one specimen examined by C. E. Hellmayr).
- Penelope purpurascens* (not of Wagler) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 12, 1863—Panama Railroad; idem, l.c., 9, p. 139, 1868—Barránca, Angostura, and La Palma, Costa Rica; Salvin, Ibis, 1869, p. 317—Costa Rica and Panama (crit.); Frantzius, Journ. Orn., 17, p. 372, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 42—Volcan de Irazú, Costa Rica.
- Penelope cristata* (not *Meleagris cristata* Linnaeus)¹ Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 525—part, Costa Rica and Panama (descr.); Nutting, Proc. U. S. Nat. Mus., 5, p. 409, 1882—La Palma, Costa Rica; idem, l.c., 6, p. 408, 1884—Los Sábalos, Nicaragua; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 576—Chimbo, Ecuador; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Jiménez and Naránjo de Cartago, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 523, 1893—Rio Escondido, Nicaragua; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 498, 1893—part, spec. g-l, n, Costa Rica (Valsa, La Palma), Panama (Lion Hill), and Ecuador (Balzar); idem, Handb. Game-Bds., 2, p. 226, 1897—part, Nicaragua to Panama and Ecuador; Underwood, Ibis, 1896, p. 448—Miravalles, Costa Rica; Hartert, Nov. Zool., 5, p. 504, 1898—Paramba, Ecuador (crit.); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 10, 1899—Laguna della Pita, Rio Lara, and Rio Cianati, Darien, Panama; Bangs, Auk, 18, p. 356, 1901—Divalá, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 277, 1902—Nicaragua to Panama and Ecuador; Bangs, Proc. New Engl. Zool. Cl., 3, p. 21, 1902—Boquete and “Caribbean slope of Volcan de Chiriquí”; idem, Auk, 24, p. 291, 1907—El Pózo de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 382, 1910—Costa Rica (Bonilla, Pózo Azul, Rio Sicsola, Miravalles, El Pózo de Térraba); Chapman, Bull. Amer. Mus. N. H., 36, p. 195, 1917—part, Chocó, Colombia, and Ecuador (Gualea, Naránjo) (crit.); Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—Volcan Ometépe, Nicaragua; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 195, 1922—Jesusito, Darien.
- Penelope cristata cristata* Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 446, 1928—Boquete Trail, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 297, 1931—Guábo, Panama.
- Penelope purpurascens aequatorialis* Hellmayr and Conover, Auk, 49, p. 331, 1932—Nicaragua to western Ecuador (crit.); Griscom, Bull. Mus. Comp. Zool., 72, p. 318, 1932—Ranchon, Panama; idem, l.c., 78, p. 303, 1935—Panama; Peters, Bds. World, 2, p. 13, 1934 (range).

¹ *Meleagris cristata* Linnaeus (Syst. Nat., 12th ed., 1, p. 269, 1766) is an indeterminate composite, based (1) on “Jacu-perna” Marcgrave (Hist. Nat. Bras., p. 198), an indefinitely described species from northeastern Brazil (possibly *P. jacucaca* Spix); (2) on “The Quan or Guan” Edwards (Nat. Hist. Bds., 1, p. 13, pl. 13) “from one of the Sugar Islands in the West Indies,” an ambiguous bird which seems to us unidentifiable. We agree, therefore, with Chubb (Ibis, 1919, pp. 16–17) that the name should be dropped altogether. The same fate is suffered by *Penelope Guan* Reichenbach (Vollst. Naturg. Tauben, p. 149, 1862), proposed for Edwards’s plate.

Range.—Tropical zone of Nicaragua, Costa Rica, and Panama south along the Pacific coast of Colombia to western Ecuador.

Field Museum Collection.—1: Costa Rica (Orósi, 1).

Conover Collection.—12: Costa Rica (Bebedéro, 1; Ballena, 1; Cerro Santa María, 1; Las Cañas, 1; Villa Quesada, 1); Panama (Port Obaldia, Darien, 4; Cricamola, Bocas del Toro, 1); Ecuador (Santo Domingo, 1; Bajo Verde, Guayas, 1).

****Penelope purpurascens perspicax* Bangs.¹ CAUCA GUAN.**

Penelope perspicax Bangs, Proc. Biol. Soc. Wash., 24, p. 187, 1911—San Luis, Bitaco Valley, western Andes, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 154, 1930); Chapman, Bull. Amer. Mus. N. H., 36, p. 195, 1917—San Antonio, western Andes; Miraflores and Salento, central Andes, Colombia (crit.).

Penelope purpurascens perspicax Hellmayr and Conover, Auk, 49, p. 332, 1932—Cauca Valley (crit.); Peters, Bds. World, 2, p. 13, 1934 (range).

Range.—Subtropical zone of western Colombia in the western Andes (Pavas; San Luis, Bitaco Valley; San Antonio; Munchique; Clementina) and on the western slope of the central Andes (Salento, West Quindio Andes; Miraflores, east of Palmira).

Conover Collection.—3: Colombia, Cauca (Munchique, El Tambo, 2; Rio Michengue, El Tambo, 1).

****Penelope purpurascens brunnescens* Hellmayr and Conover.² BROWNISH GUAN.**

Penelope purpurascens brunnescens Hellmayr and Conover, Auk, 49, p. 333, July, 1932—Rio Cogollo, Périja, Venezuela (type in Conover Collection, Field Museum of Natural History); Peters, Bds. World, 2, p. 13, 1934 (range).

¹ *Penelope purpurascens perspicax* Bangs: Similar to *P. p. aequatorialis*, but smaller; inner remiges coppery auburn instead of bronze green; foreneck and breast more brownish, less bronze green; scapulars and upper wing coverts narrowly edged with grayish, these markings being but slightly suggested in some individuals of *P. p. aequatorialis*. Wing, 310–320, (female) 295; tail, 330, (female) 300–315; bill, 31–35.

P. p. perspicax is obviously a zonal representative of *P. p. aequatorialis*, and replaces it in the Subtropical zone of the Cordilleras bordering the upper Cauca Valley.

Additional material examined.—Western Andes: San Antonio, 2; Clementina, 1.—Central Andes: Miraflores, east of Palmira, 1; Salento, West Quindio Andes, 2.

² *Penelope purpurascens brunnescens* Hellmayr and Conover: Very similar to *P. p. aequatorialis*, but pileum and upper back decidedly less greenish, about dull medal bronze; central tail feathers reddish brown or coppery auburn as in *P. p. perspicax*; foreneck and breast duller and more brownish with hardly any olive green gloss, so conspicuous in *P. p. aequatorialis*. The present race is to a certain extent intermediate between *aequatorialis* and *perspicax*, for it agrees with the

Penelope cristata (not *Meleagris cristata* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 525—part, New Granada [=Bogotá]; (?)idem, l.c., 1879, p. 544—Remedios, Antioquia; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 498, 1893—part, spec. m, Bogotá; idem, Handb. Game-Bds., 2, p. 226, 1897—part, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 126, 1900—Bonda, Santa Marta region, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 195, 1917—part, La Candela, head of Magdalena Valley, Colombia; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 30, 1922—Rio Cogollo and Rio Guachi, Venezuela.

Penelope aequatorialis (not of Salvadori and Festa) Todd and Carriker, Ann. Carnegie Mus., 14, p. 174, 1922—Las Tinajas, Bonda, Don Diego, and Minca, Colombia; Darlington, Bull. Mus. Comp. Zool., 71, p. 371, 1931—Rio Frio, Magdalena, Colombia.

Penelope purpurascens aequatorialis Todd, Proc. Biol. Soc. Wash., 45, p. 210, 1932 (crit.).

Range.—Tropical zone of extreme western Venezuela, in State of Zulia (Rio Guachi; Montañas de Palmar; Rio Cogollo, Périja), and adjoining section of Colombia (Santa Marta region), extending up the Magdalena Valley as far as La Candela, in the Subtropical zone.

Conover Collection.—3: Venezuela (Rio Guachi, Zulia, 1; Montañas de Palmar, Zulia, 1; Rio Cogollo, Périja, 1).

****Penelope obscura bronzina* Hellmayr.¹ BRONZE-GREEN GUAN.**

Penelope obscura bronzina Hellmayr, Nov. Zool., 21, p. 178, Feb., 1914—southern Minas Geraes to Santa Catharina, Brazil (type, from Colonia Hansa, Santa Catharina, in Munich Museum); Holt, Bull. Amer. Mus. N. H., 57, p. 280, 1928—Serra do Itatiaya, Rio de Janeiro; Peters, Bds. World, 2, p. 15, 1934 (range).

Penelope jacupeba (not of Spix) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 524—Rio de Janeiro and São Paulo (descr. spec. ex Itararé).

former in lacking the coppery auburn color on the inner remiges and the grayish edges on mantle and upper wing coverts, but resembles the latter in the dull brownish anterior under parts and the reddish or coppery middle rectrices. Wing, 350–360, (female) 340–355; tail, 310–340, (female) 315–340; bill, 32–35.

Santa Marta birds agree with those from Venezuela, while three adult males from La Candela in the Subtropical zone at the head of the Magdalena Valley are larger (wing, 360–382; tail, 360–380; bill, 34–36). Though the distinctness of this form was challenged by Todd, we do not see how it can be united to either *P. p. aequatorialis* or *P. p. perspicax*. The specimen from Remedios, Rio Ité, being lost, its subspecific identity remains in doubt.

Additional material examined.—Colombia: Santa Marta region (Bonda, Don Diego, Minca), 6; “Bogotá,” 1; La Candela, 3.

¹ *Penelope obscura bronzina* Hellmayr: Nearest to *P. o. obscura*, but with a shallow lappet in the middle of the neck; upper parts and breast lighter bronze green, the head and neck particularly much less blackish; crest and superciliary region profusely edged with grayish white; rump more greenish; legs lighter brown.

Material examined.—Minas Geraes: Estação do Tunnel, 2.—Rio de Janeiro: Rio de Janeiro, 4.—São Paulo: Itararé, 3; Piquete, 1.—Paraná: Roca Nova, Serra do Mar, 1.—Santa Catharina: Blumenau, 1; Colonia Hansa, 1; Jaraguá, 5.

Penelope nigricapilla (not of Gray) Pelzeln, Orn. Bras., 3, pp. 281, 341, 1870—Itararé, São Paulo (descr.).

Penelope (Salpiza) jacquaçu (not *Penelope jacquáçu* Spix) Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo, Rio de Janeiro.

Penelope obscura (not of Temminck) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 497, 1893—part, spec. d, e, Rio and São Paulo (spec. examined); idem, Handb. Game-Bds., 2, p. 225, 1897—part, southern Brazil (Rio to São Paulo); Ihering, Rev. Mus. Paul., 3, p. 410, 1899—São Paulo; idem, Cat. Faun. Braz., 1, p. 14, 1907—São Paulo and Santa Catharina (Colonia Hansa); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 337, 1909—Serra do Itatiaia, Rio de Janeiro; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 241, 1923—Retiro do Ramos, Itatiaia.

Penelope jacquaçu Ihering, Rev. Mus. Paul., 4, p. 164, 1900—Cantagallo.

Penelope jacu-açu Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 179, 1906—Retiro do Ramos, Serra do Itatiaia.

Penelope boliviana (not of Reichenbach) Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 253, 1923—Retiro do Ramos, Itatiaia.

Penelope obscura obscura Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 115, 1926—Fazenda Concordia and Fazenda Firmiano, Paraná.

Range.—Wooded region of southeastern Brazil, from southern Minas Geraes (Estação do Tunnel) and Rio de Janeiro south through São Paulo and Paraná to Santa Catharina (Blumenau, Colonia Hansa).

Field Museum Collection.—2: Brazil (Morungava, Jaguariatyva, Paraná, 2).

Conover Collection.—3: Brazil (Morungava, Jaguariatyva, Paraná, 2; Jaraguá, Santa Catharina, 1).

***Penelope obscura obscura* Temminck. DUSKY GUAN.**

Penelope obscura (Illiger MS.) Temminck, Hist. Nat. Fig. Gall., 3, pp. 68, 693, 1815—based on "Yacuhu" Azara, No. 335; Paraguay to the La Plata River; Wagler, Isis, 1830, col. 1111—Paraguay (ex Azara); Burmeister, Syst. Uebers. Th. Bras., 3, p. 340, 1856—Paraguay (ex Azara); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 525—part, Rio Vermejo and Rio Paraguay, Paraguay; Barrows, Auk, 1, p. 275, 1884—ises of the Uruguay, near Concepción, Entre Ríos; Sclater and Hudson, Arg. Orn., 2, p. 146, 1889—part, Rio Paraguay, Rio Vermejo, and Uruguay; Kerr, Ibis, 1892, p. 147—forests of Rio Bermejo and Rio Pilcomayo, Chaco Argentino; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 497, 1893—part, spec. a, c, f, Uruguay, "Brazil," and "Paraguay" (spec. examined); idem, Handb. Game-Bds., 2, p. 225, 1897—part, Uruguay, Paraguay, and northeastern Argentina; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 147, 1899—Rio Grande, Rio Grande do Sul; Lillo, Apunt. Hist. Nat., 1, p. 21, 1909—part, Santa Fé and Chaco; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 189, 1910—part, Uruguay, Chaco (Mocoví), and Rio Pilcomayo; Bertoni, Faun. Parag., p. 35, 1914—Paraguay; Tremole-

ras, El Hornero, 2, p. 11, 1920—Uruguay (Paysandú, Salto, Artigas, Minas, Treinta y Tres); Arribáizaga, l.c., 2, p. 88, 1920—Chaco.

Penelope nigricapilla G. R. Gray, Proc. Zool. Soc. Lond., 28, p. 269, 1860—"Brazil" (type in British Museum examined).

Penelope obscura obscura Hartert and Venturi, Nov. Zool., 16, p. 263, 1909—Mocoví, Chaco Santafecino; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 408, 1910—lower Pilcomayo, Chaco Santafecino, Rio Bermejo, and islands of the Rio Uruguay; Hellmayr, Nov. Zool., 21, p. 177, 1914—Rio Grande do Sul, Paraguay, Uruguay, and Chaco Santafecino (crit., diag.); Dabbene, Bol. Soc. Physis, 4, p. 104, 1918; idem, El Hornero, 1, p. 180, 1918 (range); Ménégau, Rev. Franç. d'Orn., No. 112, p. 289, 1918—Villa Lutetia, near San Ignacio, Misiones; Peters, Bds. World, 2, p. 15, 1934 (range); Krieg and Schuhmacher, Verh. Orn. Ges. Bay., 21, p. 13, 1936—northeastern Paraguay (habits).

(?) *Penelope olivacea* Bertoni, Anal. Cient. Parag., 1, (1), p. 20, 1901—Alto Paraná, Paraguay (type in coll. of A. W. de Bertoni).¹

Range.—Extreme southern Brazil (State of Rio Grande do Sul); Uruguay;² Paraguay; northeastern Argentina (Chaco south to Santa Fé; Entre Ríos; Misiones).³

****Penelope obscura bridgesi* G. R. Gray.⁴ BRIDGES'S GUAN.**

Penelope bridgesi G. R. Gray, Proc. Zool. Soc. Lond., 28, p. 270, 1860—Bolivia (type in British Museum examined).

Penelope obscura (not of Temminck) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 525—part, Bolivia; idem, l.c., 1879, p. 640—Bolivia; Sclater and Hudson, Arg. Orn., 2, p. 146, 1889—part, Tucumán and Catamarca; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 497, 1893—part, spec. g, Bolivia; idem, Handb. Game-Bds., 2, p. 225, 1897—part, Bolivia; Salva-

¹ The allocation of this name is doubtful. It was subsequently identified by Bertoni (Faun. Parag., p. 36, 1914) with *P. sclateri*, which can hardly be correct, as no representative of the *P. montagnii* group has ever been found outside of the Andes.

² "*Craz sclateri*" of Aplin (Ibis, 1894, p. 203—Rio Negro, Perdido, and Arroyo Grande, Uruguay) probably refers to the present species, no curassow being found in Uruguay.

³ Birds from Rio Grande do Sul are identical with those from Uruguay and the Chaco Santafecino.

Material examined.—Brazil, Rio Grande do Sul: Rio Grande, 1; unspecified, 2.—Uruguay: Paysandú, 2.—Argentina: Rio Paraguay, 1; Mocoví, Santa Fé, 2.

⁴ *Penelope obscura bridgesi* Gray resembles *P. o. obscura* in shape of crest-feathers, absence of gular lappet, dark brown legs, and in blackish olive coloration of head and neck; but differs by distinct whitish margins to the forecrown; much more conspicuous, pure white edges on the wing coverts; purplish bronze brown (instead of dark olive green) upper parts and chest; more rufescent rump and under parts.

Additional material examined.—Bolivia: Villa Montes, 1; unspecified, 1 (the type).—Argentina: Orán, Salta, 1; Tafi Viejo, Tucumán, 1; Tafi, Tucumán, 2; San Pablo, Tucumán, 1; Villa Nougues, Tucumán, 1; Vipos, Tucumán, 1; unspecified, 1.

dori, Boll. Mus. Zool. Torino, 12, No. 292, p. 35, 1897—Caiza, Bolivia (crit.); Lönnberg, Ibis, 1903, p. 458—Tatarenda, Bolivia; Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Orán, Salta; Lillo, Apunt. Hist. Nat., 1, p. 21, 1909—part, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 189, 1910—part, Orán, Salta.

Penelope pileata (not of Wagler) White, Proc. Zool. Soc. Lond., 1882, p. 627—Sierras de Totoral, Catamarca.

Pipile cumanensis (not *Craz cumanensis* Jacquin) Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 217, 1902—San Pablo and La Hoyada, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—same localities; Baer, Ornith., 12, p. 233, 1904—La Criolla, Tucumán.

Penelope obscura bridgesi Hartert and Venturi, Nov. Zool., 16, p. 263, 1909—Tafi, San Pablo, Villa Nougues, and Norco, Tucumán (crit.); Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 218, 1909—Jujuy; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 409, 1910—Tucumán, Catamarca, and Salta; Hellmayr, Nov. Zool., 21, p. 177, 1914—southeastern Bolivia and northwestern Argentina (diag.); Dabbene, Bol. Soc. Physis, 4, p. 104, 1918; idem, El Hornero, 1, p. 181, 1918 (range); Dinelli, El Hornero, 4, p. 275, 1929—Tucumán; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 82, 1930—Villa Montes, Tarija, Bolivia; Peters, Bds. World, 2, p. 15, 1934 (range).

Range.—Southeastern Bolivia, in depts. of Tarija (Caiza, Tatarenda, Melocoton, Villa Montes) and Cochabamba (Tin-Tin), and northwestern Argentina, from Jujuy south to Catamarca (Sierras de Totoral).

Conover Collection.—10: Bolivia (Melocoton, Tarija, 1; Tin-Tin, Cochabamba, 3); Argentina (Sierra de Santa Barbara, Jujuy, 2; Sierra de Vipos, Tucumán, 4).

**Penelope jacquacu speciosa* Todd.¹ BOLIVIAN GUAN.

¹ *Penelope jacquacu speciosa* Todd: Nearest to *P. j. jacquacu*, but crest-feathers narrower, apically less rounded, and on both webs conspicuously edged with grayish white, these edges nearly confluent at the tip, and superciliaries more profusely margined with whitish. The malar stripe varies somewhat, but is generally also more strongly variegated with grayish white, while the posterior under parts are lighter as well as brighter rufescent. The other differences claimed for this race do not hold in the specimens before us. Wing, 320, (female) 305–315; tail, 335, (female) 320–330; bill, 32–35.

This form seems to represent *P. j. jacquacu* on the northern and eastern base of the Bolivian Andes, in the northern section of Cochabamba along the Rio Chimoré, whence specimens have been recorded by Chapman, and in the region around Santa Cruz de la Sierra. In the extreme northwestern corner of the country, on the lower Rio Beni, however, Spix's Guan is found, according to Chapman.

Aside from many color characters, *P. j. speciosa* differs so markedly from *P. obscura bridgesi* by slenderer, longer bill, shorter toes, shorter and practically unfeathered tarsus, dark brown (instead of crimson) legs, and longer crest-feathers, that for the present we consider it inexpedient to merge *P. jacquacu* and *P. obscura* into a single specific entity, as has been proposed by Peters.

Additional material examined.—Bolivia: Rio Surutú, 1 (the type); Buenavista, 1.

Penelope speciosa Todd, Proc. Biol. Soc. Wash., 28, p. 82, April, 1915—Rio Surutú, Prov. del Sara, Bolivia (type in Carnegie Museum, Pittsburgh, examined); Chapman, Bull. U. S. Nat. Mus., 117, p. 44 (in text), 1921—Rio Chimoré, Cochabamba, Bolivia (crit.).

Penelope boliviana (not of Reichenbach) Burmeister, Proc. Zool. Soc. Lond., 1871, p. 701—Santa Cruz de la Sierra, Bolivia (crit.) (cf. Dabbene, Bol. Soc. Physis, 4, p. 104 [in text], 1918; idem, El Hornero, 1, p. 180 [in text], 1918 [crit.]); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 499, 1893—part, spec. g, Bolivia; idem, Handb. Game-Bds., 2, p. 227, 1897—part, Bolivia.

Penelope jacquacu boliviana Chubb, Ibis, 1919, p. 19—Bolivia (crit.).

Penelope obscura speciosa Peters, Bds. World, 2, p. 15, 1934—Bolivia.

Penelope jacquacu speciosa Hellmayr and Conover, Auk, 49, p. 335, 1932—eastern Bolivia (crit.).

Range.—Tropical zone of eastern Bolivia, in depts. of Cochabamba (Rio Chimoré) and Santa Cruz (Santa Cruz de la Sierra; Buenavista, Rio Ichilo, and Rio Surutú, Prov. del Sara).

Conover Collection.—6: Bolivia (Buenavista, Santa Cruz, 5; Rio Ichilo, Santa Cruz, 1).

**Penelope jacquacu jacquacu* Spix. SPIX'S GUAN.

Penelope jacquacu Spix, Av. Spec. Nov. Bras., 2, p. 52, pl. 68 ("P. jacquacu"), 1825—Rio Solimões, Brazil¹ (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 688, 1906); Berlepsch, Journ. Orn., 37, p. 319, 1889—Shanusi, near Yurimaguas, Peru (crit.); Hellmayr, Nov. Zool., 14, p. 408, 1907—Humaytá, Rio Madeira, Brazil; idem, l.c., 17, p. 418, 1910—Jamarysiphio, Rio Machados, Brazil; Chapman, Bull. Amer. Mus. N. H., 36, p. 196, 1917—Villavicencio and Florencia, eastern Colombia.

Penelope boliviana Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 877, 1856 (nomen nudum); Reichenbach, Vollst. Naturg. Tauben, p. 151, pl. 271, figs. 2493-4, 1862—"Bolivia" (type lost, formerly in Dresden Museum);² Pelzeln, Orn. Bras., 3, pp. 282, 339, 1870—Brazil (Salto do Girão, Rio Madeira; Lagõa Manaqueri, Rio Solimões) and Peru ("Juan-juy"= Juanfué, Rio Huallaga) (descr.); Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 526—Brazil (Rio Solimões, Rio Madeira, Lake Manaqueri) and Peru (Yurimaguas, Rio Huallaga) (monog.); idem, l.c., 1873, p. 307—Yurimaguas, Peru; Taczanowski, l.c., 1874, p. 558—Monterico and Amable Maria, Peru; idem, l.c., 1882, p. 48—Yurimaguas, Peru; idem, Orn. Pér., 3, p. 268, 1886—Peru (Monterico, Amable Maria, Yurimaguas, Huambo, Chirimoto); Allen, Bull. Amer. Mus. N. H., 2, p. 106, 1889—

¹ We suggest Coary, on the south bank of the Solimões, one of Spix's collecting stations, as type locality.

² Reichenbach's figures, poor as they are, clearly represent *P. jacquacu*, and do not show the characteristics of *P. j. speciosa*. The type, which has disappeared, was collected by the Polish traveler Warscewicz and probably came from northern Peru, not from Bolivia. A similar confusion of localities was committed by Reichenbach with other species obtained by Warscewicz, notably in the case of *Diphogena warscewiczii* [= *D. aurora*].

lower Beni, Bolivia; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 499, 1893—part, spec. a-f, Rio Solimões (Lake Manaqueri), Peru (Iquitos, Yurimaguas), and Ecuador (Sarayacu); idem, Handb. Game-Bds., 2, p. 227, 1897—part (excl. Bolivia); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—La Gloria and Chanchamayo, Peru; Sneathlage, Bol. Mus. Goeldi, 8, p. 55, 1914 (aviary spec.).

Penelope jacúacu Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 38, 1900—Rio Zamora, Ecuador.

Penelope jacquassu Ihering, Rev. Mus. Paul., 6, p. 451, 1905—Rio Juruá, Brazil; idem, Cat. Faun. Braz., 1, p. 14, 1907—Rio Juruá.

Penelope jacúacu jacúacu Chubb, Ibis, 1919, p. 18—Rio Perené, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 44, 1921—Rio Comerciato, Rio Cosireni, and San Fernando, Urubamba, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—along Rio Curaray, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 155, 1926—Rio Suno and Rio Curaray, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 249, 1930—Vista Alegre, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 236, 1932—Sarayacu, Ecuador; Hellmayr and Conover, Auk, 49, p. 335, 1932 (crit.).

Penelope obscura jacúacu Peters, Bds. World, 2, p. 14, 1934 (range).

Range.—Upper Amazonia, from eastern Colombia south through eastern Ecuador and Peru to extreme northern Bolivia (lower Beni)¹ and the adjacent parts of western Brazil (from the south bank of the Rio Solimões east to the Rio Madeira).²

Conover Collection.—21: Ecuador (Lagarto Yacu, 1; Montes Rio Guataraco, Loreto, 1; Raya-Chigta, Loreto, 2; Ouca-Yaco, Loreto, 2; Montes del Suno, Loreto, 3); Peru (Chanchamayo, 1; Vista Alegre, Huánuco, 1; Calleria, Rio Ucayali, 2; Yurimaguas, Loreto, 2); Brazil (Canutana, Rio Purús, 3; Labrea, Rio Purús, 1; Santo Antonio, Rio Juruá, 2).

Penelope jacúacu orienticola Todd.³ RIO NEGRO GUAN.

¹ According to Chapman (Bull. U. S. Nat. Mus., 117, p. 44, 1921), a single adult from the lower Beni resembles others from Peru.

² *Additional specimens examined*.—Brazil: Rio Solimões, 1 (the type); Rio Juruá, 1; Salto do Girão, Rio Madeira, 2; Jamarýsinho, Rio Machados, 3.—Peru: Chanchamayo, 1; Pozúzo, Huánuco, 3.—Ecuador: Rio Zamora, 1.

³ *Penelope jacúacu orienticola* Todd: Similar to *P. j. jacúacu*, but larger; upper parts darker green without any brownish suffusion on lower back and rump; grayish edging to crest-feathers less developed; green of breast darker; posterior under parts much less rufescent, being dark brown with narrow vermiculations of dull rufescent. Wing (male), 330; tail, 349.

The only specimen, an adult male from Ayrão, Rio Negro, which one of us has examined, agrees with Todd's description, based on a single bird from Manacapurú, in every particular except for having the primaries pale hair brown. By this character, whatever it may be worth, it seems to verge to *P. granti*, which, as has been intimated by Chapman, might prove to be conspecific with the *P. jacúacu* group. Perhaps the specimens from the Rio Cassiquiare and the base of

Penelope jacquacu orienticola Todd, Proc. Biol. Soc. Wash., 45, p. 211, Nov. 26, 1932—Manacapurú, Rio Solimões, Brazil (type in Carnegie Museum, Pittsburgh).

Penelope cristata (not *Meleagris cristata* Linnaeus) Pelzeln, Orn. Bras., 3, p. 280, 1870—Rio Negro, near Ayrão (spec. examined).

Penelope obscura orienticola Peters, Bds. World, 2, p. 14, 1934—Manacapurú.

Range.—Northern Brazil, from the north bank of the Rio Solimões (Manacapurú) to the lower Rio Negro (Ayrão).

****Penelope granti* Berlepsch.¹ OGILVIE-GRANT'S GUAN.**

Penelope granti Berlepsch, Nov. Zool., 15, p. 297, 1908—new name for *Penelope marail* (not *Phasianus marail* P. L. S. Müller) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 495, 1893; Takutú River, British Guiana (cotypes in British Museum examined); Chubb, Bds. Brit. Guiana, 1, p. 24, 1916—Supenaam River, Bartica, Ituribisci, Bonasika, Arawai, Essequibo, Great Savannahs, and Annai; Beebe, Trop. Wild Life, 1, p. 127, 1917—Bartica Grove; Chapman, Bull. Amer. Mus. N. H., 63, p. 61, 1931—Arabupu, Roraima (crit.).

Salpiza cristata (not *Meleagris cristata* Linnaeus) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 745, 1849—coastal forests and vicinity of Roraima.

Penelope marail (not *Phasianus marail* P. L. S. Müller) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 522—British Guiana (monog.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 495, 1893—Takutú River, British Guiana; idem, Handb. Game-Bds., 2, p. 223, 1897—British Guiana and "Cayenne"; Peters, Bds. World, 2, p. 13, 1934 (part).

Mount Duida mentioned by Chapman as being very near *P. granti* are actually referable to *P. j. orienticola*, which we have already traced up to the lower Rio Negro.

Material examined.—Brazil: near Ayrão, Rio Negro, 1.

¹ *Penelope granti* Berlepsch, although united to *P. marail* by Peters, is quite distinct, differing from it by much larger size with stronger bill and much heavier, longer tarsi; deep bluish green upper parts and chest; dusky or dusky brown lower breast and abdomen without any rufescent tone (instead of light rufescent barred and variegated with dusky); blackish cheek-stripe less extensively edged with gray. Wing, 315–340; tail, 337–360.

From a study of the large series of British Guianan skins in the British Museum by the senior author it clearly results that *P. granti* and *P. marail* are specifically different. There are seventeen specimens of the former and twenty-nine of the latter in that collection, various localities (Waremia River, Supenaam, Great Savannahs, Camacabra Creek, Ituribisci River, Bartica Grove) being represented by both species. While the characters given above hold in every one of the numerous specimens examined, the pale (hair brown) coloration of the outer primaries does not seem to be of any consequence. Though we have not been able to make direct comparison, *P. granti* apparently differs from *P. j. orienticola* by bluish green upper parts and chest, longer as well as narrower crest-feathers, and by lacking every trace of the rufescence on the posterior lower parts so conspicuous in *orienticola*.

Additional material examined.—British Guiana: Waremia River, 3; Annai, 1; Supenaam, 1; Bonasika River, 1; Great Savannahs, 3; Takutú River, 3; Arawai River, 1; Camacabra Creek, 3; Ituribisci River, 1; Bartica Grove, 1.

Penelope cristata Salvin, Ibis, 1886, p. 175—British Guiana (ex Schomburgk); W. L. Sclater, Ibis, 1887, p. 317—Corentyne River and "Orinoco Country."

Penelope purpurascens (not of Wagler) J. E. Gray, Knowsley Menag., 2, pl. 11, 1846.

Range.—British Guiana.¹

Field Museum Collection.—4: British Guiana (Demerara River, 1; Rockstone, Essequibo River, 3).

Conover Collection.—5: British Guiana (Wismar, Demerara River, 1; Rockstone, Essequibo River, 2; Oko Mountains, Essequibo River, 2).

****Penelope orton*i Salvin.² ORTON'S GUAN.**

*Penelope orton*i Salvin, Ibis, (3), 4, p. 325, 1874—Mindó, "western slope of Pichincha, 6,000 to 7,000 ft.,"³ Ecuador (type in Museum of Vassar College, Poughkeepsie, N.Y.); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 576—Chimbo, Ecuador; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 496, 1893—western Ecuador; idem, Handb. Game-Bds., 2, p. 224, 1897—Mindó (ex Salvin); Hartert, Nov. Zool., 5, p. 504, 1898—Cachaví (alt. 500 ft.) and Paramba (alt. 3,500 ft.), Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 37, 1900—Naranjal, Ecuador; Hartert, Nov. Zool., 9, p. 600, 1902—Rio Bogotá, Ecuador; Goodfellow, Ibis, 1902, p. 228—Santo Domingo, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 194, 1917—Baudo, Colombia; idem, l.c., 55, p. 153, 1926—above Bucay and below Mindó, Ecuador; Hellmayr and Conover, Auk, 49, p. 336, 1932 (crit.); Peters, Bds. World, 2, p. 13, 1934 (range).

Range.—Tropical zone of western Colombia and western Ecuador, from Chocó south to Chimbo.

Conover Collection.—19: Ecuador (Gualea, 1; Santo Domingo de los Colorados, 1; Milpe Mindó, Pichincha, 5; Achotal, Imbabura, 3);

¹ The supposed occurrence in "Cayenne" and the "Orinoco Country" requires confirmation.

² *Penelope orton*i is rather an isolated species, characterized by the complete absence of any rufescent tone on the lower parts (the abdomen being sepia brown like the tibial feathers and under tail coverts and very little different from the slightly more bronzy breast) as well as by the conspicuous white lateral edges on the under surface, extending down to the belly. The small size, the uniform dark brown pileum, malar region, and sides of neck, as well as the lack of grayish edges to mantle and wing coverts, are other striking features. The throat and foreneck are entirely bare, only the gonydeal angle being covered with blackish feathers. Wing, 255–270; tail, 245–255.

Additional material examined.—Colombia: Rio Dagua, San José, 1.—Ecuador: Paramba, 1; Santo Domingo, 2; Chimbo, 1.

³ Mindó being only a little over 4,000 feet above sea level, the altitude indicated by Salvin cannot be correct. The species appears to be confined to the lower Tropical zone, the highest station whence it has yet been recorded being Paramba, at 3,500 feet elevation.

Colombia (La Costa, El Tambo, Cauca, 7; Rio Michengue, El Tambo, Cauca, 2).

***Penelope albipennis* Taczanowski.¹ WHITE-WINGED GUAN.**

Penelope albipennis Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 746—Santa Lucia, Tumbez, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniński, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 100, 1927); idem, Orn. Pér., 3, p. 271, 1886—Tumbez and Hacienda de Pabur, Piura; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 502, 1893—vicinity of Tumbez; idem, Handb. Game-Bds., 2, p. 230, 1897 (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 154, 1926—Tumbez; Carriker, Proc. Acad. Nat. Sci. Phila., 86, p. 318 (in text), 1934 (crit.); Peters, Bds. World, 2, p. 13, 1934 (range).

Range.—Tropical zone of northwestern Peru, from Tumbez to Piura (possibly to the Chicama Valley, near Trujillo).²

****Penelope superciliaris superciliaris* Temminck. SUPERCILIATED GUAN.**

Penelope superciliaris (Illiger MS.) Temminck, Hist. Nat. Fig. Gall., 3, pp. 72, 693, 1815—"Brésil, et plus particulièrement dans le district de Pará" (type lost, formerly in collection of C. J. Temminck);³ Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 491, 1893—part, spec. a, b, Pará and Rio Capim; idem, Handb. Game-Bds., 2, p. 220, 1897—part, Pará; Goeldi, Ibis, 1903, p. 500—Rio Capim, Pará; Sneath, Bol. Mus. Goeldi, 8, p. 55, 1914—Santa Isabel, Rio Capim, Rio Acará, Rio Tocantins (Arumatheua), and Rio Tapajóz (Boim).

¹ *Penelope albipennis* Taczanowski is still known only from two specimens, the type taken by Sztolcman at Santa Lucia, near Tumbez, in the Warsaw Museum, and a female from Hacienda de Pabur (vicinity of Piura) in the Raimondi Collection, now in San Marco University at Lima. It has been suggested that the species might have been based on partial albinos of *P. orloni*. Against this supposition, however, speak not only Sztolcman's observations, but also Taczanowski's measurements (wing, 325–336; tail, 325), which are much too large for *P. orloni*, and various details in coloration (crest-feathers edged with whitish gray; rump, tail coverts, and abdomen vermiculated with rufescent, etc.). It is to be hoped that precise information on this puzzling bird may soon be forthcoming.

² According to Sztolcman, as recorded by Taczanowski (Orn. Pér., 3, p. 271, 1886).

³ Neumann has recently tried to shift the name *superciliaris* to the form of eastern Brazil, his principal reason for the change being that a specimen in the Berlin Museum was collected by Gomez in the vicinity of Bahia. His whole argument is based on the supposition that this example is Temminck's type. However, he not only failed to prove his point, but even the published evidence tends to demonstrate its fallacy. At the end of the original account (pp. 74–75), Temminck, in fact, states: "Je dois à M. le Comte de Hoffmannsegg l'individu qui fait partie de mon cabinet; les deux individus adultes et le jeune oiseau qui font partie du Muséum de Berlin, sont aussi le produit des voyages que ce savant a fait faire à ses fraix [sic] dans le Brésil." This statement at once disposes of Neumann's surmise that there was only a "unique" specimen, and, furthermore, supplies two important facts: (1) that the type was in Temminck's private collection, and (2) that three additional examples were in the Berlin Museum. The bird examined by Neumann is evidently one of those mentioned by Temminck as being at the time in that collection, and has no claim whatever to be regarded as the type. The circumstance that the type, like several others of his, has disappeared from

Penelope superciliaris var. Pelzeln, Orn. Bras., 3, p. 283, 1870—Rio Guaporé (Forte do Principe) and Rio Madeira (Borba).

Penelope superciliaris superciliaris Hellmayr, Nov. Zool., 14, p. 408, 1907—Borba, Rio Madeira; idem, l.c., 17, p. 418, 1910—Borba; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 81, 97, 1912—Peixe-Boi and Rio Acará, Pará (Pará localities); Peters, Bds. World, 2, p. 15, 1934 (range).

Penelope superciliaris pseudonyma Neumann, Bull. Brit. Orn. Cl., 53, p. 93, Jan., 1933—Rio de "Cumana" [=Canumá], Rio Madeira, Brazil (type in Conover Collection, Field Museum of Natural History); idem, Verh. Orn. Ges. Bay., 20, p. 184, 1933 (crit.).

Range.—Northern Brazil, south of the Amazon, from Pará west to the Rio Madeira and its tributary, the Rio Guaporé (Forte do Principe da Beira), on the northern confines of Matto Grosso.¹

Conover Collection.—15: Brazil (Villa Acará, Rio Acará, 1; Serraria Cabrol, Rio Acará, 1; Buenos Aires, Rio Acará, 1; Ipomongo, Rio Capim, 1; Boim, Rio Tapajóz, 1; Pinhel, Rio Tapajóz, 3; Caxiricatuba, Rio Tapajóz, 4; Tauary, Rio Tapajóz, 2; Rio Canumá, Amazonas, 1).

****Penelope superciliaris ochromitra* Neumann.² BUFFY-BROWED GUAN.**

Temminck's private collection, which was subsequently incorporated in the Leiden Museum, cannot by any means be used as a pretext for arbitrarily substituting another so-called type specimen. It is quite probable that Hoffmannsegg had received specimens of this penelope through both of his collectors, one through Sieber from the Pará region, which was given to Temminck, and others through Gomez from Bahia, which were retained in the Berlin Museum. The slight differences separating the two races would not have been regarded as of importance in the beginning of the nineteenth century.

As to Temminck's description, it contains nothing that contradicts the characters of the Lower Amazonian form. In many specimens, it is true, there is hardly a trace of a superciliary line, but in others this marking is present and extends well to some distance above the lores, so that Temminck's expression ("part de la racine du bec") would not seem to be far-fetched. Besides, Temminck specifically mentions the Pará district as particular habitat, and this fixes the name unequivocally.

¹ *Additional material examined*.—Pará: Peixe-Boi, 1; Igarapé-Assú, 1; Rio Acará, 2.—Amazonas: Borba, Rio Madeira, 3; Forte do Principe, Rio Guaporé, 1.

² *Penelope superciliaris ochromitra* Neumann: Exactly similar to *P. s. jacupemba*, but superciliaries more strongly tinged with buffy, sometimes even wholly ochraceous-buff to ochraceous-tawny.

When describing this form, Neumann had only three specimens from near Parnaguá, and evidently overlooked Hellmayr's remarks on the variability in the series at Field Museum. In fact, only three of our nine birds (two from Tranqueira, one from Fazenda Inhumá) have the superciliaries as deeply tawny-ochraceous and connected by a distinct frontal band as the three individuals from near Parnaguá, which formed the basis of *P. s. ochromitra*. In all the others, the superciliaries are much less rufescent with frontal bar either present or lacking. Several individuals, notably one from Deserto, Piahy, and another from Santo Antonio, Goyáz, closely approach São Paulo and Minas Geraes examples, the

Penelope superciliaris ochromitra Neumann, Bull. Brit. Orn. Cl., 53, p. 94, Jan., 1933—Lagõa do Missão, near Parnaguá, Piahy (type in Vienna Museum examined); idem, Verh. Orn. Ges. Bay., 20, p. 186, 1933—Piahy (crit.).

Penelope superciliaris jacupemba (not of Spix) Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 690, 1906—part, Piahy (crit.); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 88, 1910—Lagõa do Missão, Piahy; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 472, 1912—Maranhão (Fazenda Inhuma, Alto Parnahyba; Tranqueira; Bõa Vista), Piahy (Deserto; Lagõa do Missão), and Goyáz (Bõa Vista, lower Tocantins) (crit.); Peters, Bds. World, 2, p. 15, 1934 (part).

Range.—Northeastern Brazil, in states of Maranhão, Piahy, and the adjacent section of northern Goyáz (Bõa Vista, lower Tocantins).¹

Field Museum Collection.—1: Brazil (Tranqueira, Maranhão, 1).

Conover Collection.—9: Brazil (Fazenda Inhuma, Alto Parnahyba, Maranhão, 2; Tranqueira, Maranhão, 1; Bõa Vista, Maranhão, 1; Deserto, Piahy, 4; Santo Antonio, Bõa Vista, lower Tocantins, Goyáz, 1).

****Penelope superciliaris jacupemba* Spix.² SPIX'S GUAN.**

Penelope jacupemba Spix, Av. Nov. Spec. Bras., 2, p. 55, pl. 77, 1825—Presidio do São João, near Rio de Janeiro (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 690, 1906).

superciliaries being just a slight shade more buffy. Another specimen from Deserto can hardly be distinguished from the type of *P. jacupemba*, once more casting doubt on the correctness of the latter's type locality, Presidio de São João, near Rio de Janeiro. The general coloration of the present form is even paler than in the next race.

Additional material examined.—Piahy: Lagõa do Missão, near Parnaguá, 3.

¹ Possibly *Penelope supercciliaris* (sic) Snethlage (Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926 Ceará) belongs here. The author simply says: "Paler than Pará specimens."

² *Penelope superciliaris jacupemba* Spix: Similar to *P. s. superciliaris*, but general coloration with a more grayish cast; the edgings to wing and upper tail coverts wider and lighter rufous; the superciliaries broader, hoary gray or very slightly tinged with buffy, and as a rule extended forward to the base of the bill.

Neumann has attempted to divide this form into three, but the much more satisfactory material at our command fails to substantiate his conclusions. There is no doubt that birds from Bahia, southern Goyáz, Minas Geraes, and Rio de Janeiro, are the same. Of four Bahia skins, one has broad, hoary gray superciliaries reaching to the base of the bill and forming a distinct band across the forehead, exactly as in an adult from Rio das Almas, Goyáz (*argyromitra*); in two others, the narrower grayish, dusky-mottled eyebrow starts a little in front of the eye; and the fourth has just a few grayish fringes in the superciliary region, as is the case in certain individuals of typical *superciliaris* from Lower Amazonia. Two adults from Rio de Janeiro again have broad superciliaries, likewise four from São Paulo and two from Minas Geraes, the tone varying from whitish gray to buffy gray, with or without any light coloring across the forehead. Birds from São Paulo are slightly darker green above, but have the heavy rufous edges to

Penelope marail (not *Phasianus marail* P. L. S. Müller) Wied, Reise Bras., 1, pp. 69 (8vo ed., p. 67), 197 (8vo ed., p. 194), 262 (8vo ed., p. 260), 326 (8vo ed., p. 323), 1820—Rio de Janeiro (Fazenda Pitanga, near Saquarema), Espirito Santo (Aldea Velha=Santa Cruz), and Bahia (Morro d'Arara, Rio Mucuri; Timicui, Rio Belmonte).

Penelope superciliaris (not of Temminck) Wied, Beitr. Naturg. Bras., 4, (2), p. 539, 1833—southeastern Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 337, 1856—Rio de Janeiro (Nova Friburgo) and Minas Geraes (Lagõa Santa); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 53—Minas Geraes (Olhos d'Agua, Soumidouro, Lagõa dos Pitos, Lagõa Santa, Curvelho); Pelzeln, Orn. Bras., 3, p. 282, 1870—Rio de Janeiro (Sapitiba) and São Paulo (Ypanemá, Mattodentro, Itararé); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 527—Bahia to São Paulo (monog.); Forbes, Ibis, 1881, p. 357—Panellas, near Quipapá, Pernambuco; Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 491, 1893—part, spec. e-m, Bahia, Rio de Janeiro, São Paulo (Ypanemá, Rio Paraná), and Matto Grosso; idem, Handb. Game-Bds., 2, p. 220, 1894—part, Bahia, São Paulo, and Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 409, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 164, 1900—Cantagallo, Rio de Janeiro; idem, Cat. Faun. Braz., 1, p. 13, 1907—São Paulo (Ypiranga, Poço Grande, Jaboticabal, Franca) and Espirito Santo (Rio Doce); Sztolerman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 115, 1926—Porto Xavier da Silva and Salto Guayra, Paraná.

Penelope superciliaris jacupemba Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 690, 1906—part, Presidio do São João; Naumburg, Bull. Amer. Mus. N. H., 60, p. 62, 1930—Tapirapoan, Matto Grosso; Neumann, Verh. Orn. Ges. Bay., 20, p. 185, 1933 (note on type); Peters, Bds. World, 2, p. 15, 1934 (part); Pinto, Rev. Mus. Paul., 17, (2), p. 801, 1932—Porto Tibiriça, Rio Paraná, São Paulo; idem, l.c., 19, p. 56, 1935—Rio Jucurucú and Cachoeira Grande, Bahia (crit.); idem, l.c., 20, p. 35, 1936—Rio das Almas, Goyáz.

scapulars and secondaries of the present form. Those from Matto Grosso are even nearer the Paraguayan race in general coloration, though they have very bright rufous rumps, and differ, furthermore, by the still greater extent of the rufous wing edgings. The applicability of *P. jacupemba* to the birds of eastern Brazil is somewhat questionable. Spix, who mentions as only locality "Presidio do São João" near Rio de Janeiro, appears to have had two examples, since he states "mas a femina vix diversus," and calls the superciliary streak "rufescens vel canescens." In the initial diagnosis we read "rufescens," which corresponds well to the only specimen now preserved in the Munich Museum. While the plate evidently represents a gray-browed bird, Spix's example, as we have stated under *P. s. ochromitra*, seems to be indistinguishable from certain pale-browed individuals from Piahy, and it is quite possible that the locality is wrong, and that it actually came from Piahy or Maranhão, in which case *jacupemba* would supersede *P. s. ochromitra*, while the present form would become *P. s. argyromitra*. However, birds with slightly buffy-tinged superciliaries are not infrequent in Bahia and farther south, and as other helpful characters are not discernible in the soiled, faded type specimen, we deem it best not to disturb nomenclature at present.

Additional material examined.—Brazil: Bahia, 4; Rio das Almas, Goyáz, 1; Agua Suja, near Bagagem, Minas Geraes, 1; Rio Jordão, Minas Geraes, 1; Rio de Janeiro, 3; Rio Doce, Espirito Santo, 1; Victoria, São Paulo, 2; Ypanemá, São Paulo, 4; Chapada, Matto Grosso, 5; Tapirapoan, Matto Grosso, 1.

Penelope superciliaris argyromitra Neumann, Bull. Brit. Orn. Cl., 53, p. 94, Jan., 1933—Veadeiros, northwest of Forte, Goyáz (type in coll. of O. Neumann); idem, Verh. Orn. Ges. Bay., 20, p. 185, 1933—Goyáz to Minas Geraes (crit.).

Penelope superciliaris superciliaris Neumann, Verh. Orn. Ges. Bay., 20, p. 184, 1933—Bahia (crit.).

Range.—Eastern and central Brazil, from Pernambuco south to São Paulo and Paraná, west through Minas Geraes and southern Goyáz to Matto Grosso.

Field Museum Collection.—1: Brazil (Victoria, São Paulo, 1).

Conover Collection.—1: Brazil (Victoria, São Paulo, 1).

****Penelope superciliaris major* Bertoni.¹ PARAGUAYAN GUAN.**

Penelope purpurescens (not *P. purpurascens* Wagler, 1830) Bertoni, Anal. Cient. Parag., 1, No. 1, p. 16, Jan., 1901—Alto Paraná, between lat. 25° and 26° south, Paraguay (type in coll. of A. W. de Bertoni).

Penelope purpurescens major Bertoni, Anal. Cient. Parag., 1, No. 1, p. 19, Jan., 1901—[Alto Paraná], lat. 25° 43' south, Paraguay (type in coll. of A. W. de Bertoni).

Penelope superciliaris (not of Temminck) Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 178, 1885—Taquara, Rio Grande do Sul; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 491, 1893—part, Rio Grande do Sul; idem, Handb. Game-Bds., 2, p. 220, 1897—part, Rio Grande do Sul; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 147, 1899—Taquara and Barra do Camaquã, Rio Grande do Sul; Arribáizaga, Anal. Mus. Nac. Buenos Aires, 7, p. 336, 1902—Paraguay (crit.); Dabbene, l.c., 18, p. 189, 1910—Alto Paraná (ex Bertoni); idem, Bol. Soc. Physis, 1, pp. 247, 252, 1913—Santa Ana, Misiones; Bertoni, Faun. Parag., p. 36, 1914—Paraguay; Dabbene, El Hornero, 1, p. 181, 1918—Bonpland and Santa Ana, Misiones.

Penelope superciliaris major Neumann, Verh. Orn. Ges. Bay., 20, p. 187, 1933—part, Santa Catharina and Rio Grande do Sul (crit.); Peters, Bds. World, 2, p. 15, 1934—Paraguay and northeastern Argentina.

Range.—Eastern Paraguay, northeastern Argentina (Misiones), and extreme southern Brazil (states of Santa Catharina and Rio Grande do Sul).²

¹ *Penelope superciliaris major* Bertoni: Similar to *P. s. jacupemba*, but darker, more olive green, on upper parts and breast; rufous edges to scapulars and secondaries much reduced, sometimes practically obsolete.

Seven specimens are fairly uniform in their characters. In one specimen each from Horqueta and Puerto Segundo the rufous wing-edging is merely suggested by traces. A single bird from Rio Grande do Sul is decidedly referable to *major*, while two from Santa Catharina (Jaraguá), by slightly wider wing margins, form the transition to *P. s. jacupemba*.

Additional material examined.—Brazil: Taquara, Rio Grande do Sul, 1; Jaraguá, Santa Catharina, 2.

² "Buenos Aires" mentioned by Neumann among the localities of this form is undoubtedly incorrect.

Conover Collection.—11: Paraguay (Horqueta, 4; 40 km. west-southwest of Capitan Bado, Cerro Amambay, 4); Argentina (Puerto Segundo, Misiones, 3).

****Penelope montagnii montagnii* (Bonaparte). MONTAGNE'S GUAN.**

Ortaliada montagnii Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 875, 1856—"Nouvelle Grenade"—native Bogotá collections¹ (type in Paris Museum examined); Sclater, Proc. Zool. Soc. Lond., 25, p. 19, 1857—"Bogotá."

Siegnolaema montagnii Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 521—part, New Granada; idem, l.c., 1875, p. 235—Mérida, Venezuela.

Penelope montagnii Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 492, 1893—part, spec. a-e, i, Venezuela (Mérida) and Colombia (Bogotá, Pasto); idem, Handb. Game-Bds., 2, p. 221, 1897—part, Venezuela and Colombia.

Penelope montagni Chapman, Bull. Amer. Mus. N. H., 36, p. 194, 1917—Colombia (Valle de las Pappas; Almaguer; Santa Isabel; above Subia; El Piñon); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 30, 1922—Colombia (Páramo de Tamá) and Venezuela (Rio Mucujón).

Penelope montagnii montagnii Hellmayr and Conover, Auk, 49, p. 326, 1932—Colombia and Venezuela (crit.); Peters, Bds. World, 2, p. 14, 1934 (range).

Range.—Temperate zone of the Andes of Colombia and western Venezuela (Cordillera of Mérida).²

Field Museum Collection.—2: Colombia (Páramo de Tamá, 2).

Conover Collection.—12: Venezuela (La Cuchilla, Mérida, 2; Rio Mucujón, Mérida, 3); Colombia (Palatera, Coconuco, Cauca, 5; La Plata, Huila, 2).

****Penelope montagnii atrogularis* Hellmayr and Conover.³ BLACK-THROATED GUAN.**

¹ The type is a native Bogotá specimen presented by Mr. Lewy in 1850. Chapman (l.c., p. 194, 1917) suggests as type locality El Piñon, above Fusugasugá, eastern Andes of Colombia.

² Venezuelan birds are identical with a topotypical series from the east Colombian Andes. Birds from the central and western Andes of Colombia are more or less intermediate in their characters between *montagnii* and *atrogularis*, though some are practically indistinguishable from Bogotá skins, while one or two can be closely matched by west Ecuadorian specimens (cf. Hellmayr and Conover, l.c., p. 327).

Delacour's record (Ibis, 1923, p. 138) of *P. montagnii* from the "southern part of the llanos" of Guarico, Venezuela, cannot possibly refer to the present species.

Additional specimens examined.—Colombia: Bogotá, 4; Subia, Cundinamarca, 3; El Piñon, above Fusugasugá, 1; Santa Isabel, Quindio Andes, 6; Almaguer, central Andes, Cauca, 1; Valle de las Pappas, central Andes, Huila, 1; Sancudo, western Andes, Caldas, 3; La Leonera, western Andes, Caldas, 2.—Venezuela: Valle, Mérida, 2.

³ *Penelope montagnii atrogularis* Hellmayr and Conover: Nearest to the nominate race, but on average smaller; only chin and upper throat with scant,

Penelope montagnii atrogularis Hellmayr and Conover, Auk, 49, p. 328, July, 1932—Alaspungo, western Ecuador (type in Conover Collection, Field Museum of Natural History); Peters, Bds. World, 2, p. 14, 1934—western Ecuador.

Ortalida montagnii (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 28, pp. 72, 97, 1860—Chillanes, Nanegal, and above Puellarro.

Stegnolaema montagnii Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 521—part, western Ecuador (Chillanes, Nanegal, Puellarro).

Penelope montagnii Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 312—La Unión; Goodfellow, Ibis, 1902, p. 229—western side of Pichincha.

Penelope montagnei Lönnerberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Piganta, Mojanda, and below Nono, Ecuador.

Penelope montagnii montagnii Chapman, Bull. Amer. Mus. N. H., 55, p. 152, 1926—Piganta (Mojanda Mountains), Nono, Pichincha, and Rio Pita, Ecuador.

Penelope montagnii brooki (not of Chubb) Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 621, 1932—El Portete de Tarquí, Prov. Azuay.

Range.—Subtropical and humid Temperate zones of western Ecuador.

Conover Collection.—12: Ecuador (Alaspungo, 3; Chaloya, Pichincha, 3; Pucara, Pichincha, 1; Lloa-Urabuco, Pichincha, 1; Paramba, 2; Montes de Anagumba, Imbabura, 2).

**Penelope montagnii brooki* Chubb.¹ BROOK'S GUAN.

Penelope brooki Chubb, Bull. Brit. Orn. Cl., 38, p. 5, Oct., 1917—[above] Baeza, eastern Ecuador (type in British Museum examined); idem, Ibis, 1919, p. 15—“Baeza” (crit.).

Ortalida montagnii (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 26, pp. 76, 556, 1858—Rio Napo and Matos, Ecuador.

Stegnolaema montagnii Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 521—part, Matos, Ecuador.

bristle-like black feathering without any gray; malar region, auriculars, and superciliary region with mere traces of gray edges, forehead only with faint lateral fringes of gray; posterior under parts less tawny; apical half of upper mandible (beyond nasal fossa) horn brown, not reddish. Wing, 225–245; tail, 210–220, once 235; bill, 27–30.

Additional material examined.—Ecuador: “Nanegal,” 1; Aluguincho, 2; Huila, 1; La Unión, 2.

¹ *Penelope montagnii brooki* Chubb: Similar to *P. m. atrogularis* in scant, bristle-like, uniform black feathering of chin and upper throat, but differing by duller (about auburn) rump; somewhat more bronzy, greenish rather than brownish back, and particularly by having, like typical *montagnii*, wide ashy gray edges on sides of head and neck. The feathers of the pileum are broadly margined laterally with whitish gray down to the upper back, and the whitish edges on foreneck and breast are even more prominent than in *montagnii*. Besides, the apical half of the maxilla is chrome-yellow abruptly contrasted with the blackish basal portion. Wing, 230–235; tail, 210–225; bill, 28–32.

Additional material examined.—Ecuador: “Baeza,” 2; Yunguilla, 2.

Penelope montagnii Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 112—San Rafael; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 492, 1893—part, spec. f-h, San José, Ecuador; idem, Handb. Game-Bds., 2, p. 221, 1897—part, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 37, 1900—Pun, eastern Ecuador.

Penelope montagnii brooki Chapman, Bull. Amer. Mus. N. H., 55, p. 153, 1926—below Papallacta, below Oyacachi, above Baeza, upper Sumaco, and above Baños, Ecuador (crit.); Berlioz, Bull. Mus. Nat. Hist. Paris, (2), 4, p. 236, 1932—Yunguilla; Hellmayr and Conover, Auk, 49, p. 329, 1932—Cuyuja and "Baeza," Ecuador (crit.); Peters, Bds. World, 2, p. 14, 1934—eastern Ecuador.

Range.—Humid Temperate zone of eastern Ecuador.

Conover Collection.—5: Ecuador (Cuyuja, 3; Mt. Tungurahua, 1; Huagropamba, 1).

****Penelope montagnii plumosa* Berlepsch and Stolzmann.¹ PERUVIAN GUAN.**

Penelope sclateri plumosa Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 45—Maraynioc, Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 100, 1927); Chapman, Bull. U. S. Nat. Mus., 117, p. 44, 1921—Torontoy, Urubamba, Peru.

Penelope sclateri (not of Gray) Selater, Proc. Zool. Soc. Lond., 1873, p. 780—Huasampilla, Cuzco; Taczanowski, l.c., 1874, p. 558—Chilpes; Selater and Salvin, l.c., 1874, pp. 678, 679—Paucartambo, Cuzco (crit.); Taczanowski, Orn. Pér., 3, p. 269, 1886—part, Chilpes, Pumamarca, and Paucartambo, Peru; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 493,

¹ *Penelope montagnii plumosa* Berlepsch and Stolzmann is about halfway between the northern races and *P. m. sclateri*, of Bolivia. It differs from *montagnii* and the two Ecuadorian forms by wholly blackish maxilla, much more prominent, silvery white instead of grayish edges on pileum, hind neck, and superciliary region; the possession of very distinct, silvery white lateral margins on the mantle and upper wing coverts, and more conspicuous, silvery white rather than grayish white markings on foreneck and breast, which, moreover, do not meet at the tip, thus producing a more streaked effect. The rufous of the belly is brighter than in *montagnii*, though not so intense as in *sclateri*. From the latter, *P. m. plumosa* may be separated by having the chin and throat densely covered with soft, fully developed, ashy-gray, centrally dusky-streaked feathers as in *montagnii*, whereas the Bolivian form shows only scant blackish "bristles" on the upper portion of the otherwise bare throat. The bare space round the eye is less extensive, and the consequently broader feathered malar stripe is edged with ashy gray as in *montagnii*, not with silvery white as in *sclateri*. Forehead, crown and superciliary region are as profusely margined with silvery white as in *sclateri*, but these markings also extend over nape, hind neck, and upper back, whereas in the Bolivian form the posterior part of the crown and hind neck are uniform bronze green. On foreneck and breast the white lateral margins are likewise much wider as well as more numerous, and the abdomen is decidedly duller rufescent. The general coloration of the body plumage is brownish bronze as in *montagnii*, much less greenish than in *sclateri*. Wing, 240–245, (female) 235; tail, 240–245; bill, 26–28.

The above characterization is based on birds from northern Peru, no material from the type locality being available.

1893—part, spec. a, Huasampilla; idem, Handb. Game-Bds., 2, p. 222, 1897—part, Peru; Ménégau, Rev. Franç. d'Orn., 1, p. 319, 1910—Cum-pang (east of Tayabamba), Prov. Pataz, Peru.

Penelope montagnii plumosa Hellmayr and Conover, Auk, 49, p. 329, 1932—east of Molinopampa and Balsas (crit.); Peters, Bds. World, 2, p. 14, 1934 (range).

Range.—Humid Temperate zone of eastern Peru, from Dept. of Libertad south to the Urubamba region, Dept. of Cuzco.

Field Museum Collection.—4: Peru (ten miles east of Molinopampa, 3; mountains east of Balsas, 1).

****Penelope montagnii sclateri* G. R. Gray. SCLATER'S GUAN.**

Penelope sclateri G. R. Gray, Proc. Zool. Soc. Lond., 28, p. 270, 1860—Bolivia (type in British Museum examined); Sclater and Salvin, l.c., 1870, p. 527—Bolivia (monog.); idem, l.c., 1879, p. 640—Tiltilo, Bolivia; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 493, 1893—part, spec. b-g, Tiltilo, Bolivia; idem, Handb. Game-Bds., 2, p. 222, 1897—part, Bolivia.

Penelope montagnii sclateri Hellmayr and Conover, Auk, 49, p. 330, 1932—Bolivia (crit.); Peters, Bds. World, 2, p. 14, 1934—Bolivia.

Range.—Subtropical and humid Temperate zones of western and central Bolivia.¹

Conover Collection.—6: Bolivia (Yungas de Cochabamba, 2; Incachaca, Cochabamba, 4).

****Penelope dabbeni* nom. nov.² DABBENE'S GUAN.**

Penelope nigrifrons (not of Lesson, 1831) Dabbene, Physis, 4, No. 16, p. 102, May, 1918—Cerro de Calilegua, Ledesma, Prov. Jujuy, Argentina (type in Museo Nacional de Historia Natural, Buenos Aires); idem, El Hornero, 1, p. 178, Oct., 1918 (reprint); Peters, Bds. World, 2, p. 14, 1934—southeastern Bolivia (Tarija) and Jujuy.

¹ *Additional material examined*.—Bolivia: San Antonio, 1; Cocapata, 2; unspecified, 1 (the type).

² *Penelope dabbeni* Hellmayr and Conover, judging from the slender, pale brown legs and the presence of a shallow gular lappet, is allied to *P. m. sclateri*, but differs by larger size, more extensively feathered tarsus, much less rufescent rump and posterior under parts, narrower crest-feathers, and much less gray suffusion in the malar stripe. From *P. obscura bridgesi*, which is found in the same parts of Bolivia and Argentina, Dabbene's Guan is evidently quite distinct specifically. Aside from its shorter wings and tail and slightly shorter bill, it may be distinguished by much slenderer, pale brown legs with much more extensive feathering on the inner side of the tarsus; broader and apically bluntly rounded crest-feathers with conspicuous grayish white lateral edges; mainly hoary whitish (instead of blackish bronze) superciliary region; grayish suffusion of the malar stripe; much lighter, brownish bronze instead of blackish, coloration of upper parts, neck, and breast; much narrower, grayish instead of pure white margins to the upper wing coverts; more rufescent rump and posterior under parts with mere traces of dusky vermiculations, etc. Wing (male), 285; tail, 300; tarsus, 70; bill, 28.

Additional material examined.—Argentina: Cerro de Calilegua, Jujuy, 1 (Munich Museum).

Range.—Subtropical zone of southeastern Bolivia (Pinos, Dept. Tarija) and northwestern Argentina (Cerro de Calilegua, Prov. Jujuy).

Conover Collection.—2: Bolivia (Pinos, Tarija, 2).

***Penelope jacu-caca** Spix.¹ BROWN GUAN.

Penelope jacu-caca Spix, Av. Spec. Nov. Bras., 2, p. 53, pl. 69, 1825—near Poçoens Encima, Bahia, Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 689, 1906); Wagler, Isis, 1830, col. 1110 (descr. spec. typ.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 338, 1856—Bahia (ex Spix) and "British Guiana" (ex Schomburgk), errore; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 523 (descr. ex Wagler; Bahia and "British Guiana," errore); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 501, 1893—Bahia and "British Guiana"; idem, Handb. Game-Bds., 2, p. 229, 1897—Bahia and "British Guiana" (monog.); Ihering, Cat. Faun. Braz., 1, p. 14, 1907 (range); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 88, 1910—Lagõa do Missão, near Parnaguá, Piauh, Brazil (spec. examined); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 474, 1929—Deserto, Piauh (crit.); Peters, Bds. World, 2, p. 16, 1934—Bahia and Piauh.

Penelope superciliaris (not of Temminck, 1815) J. E. Gray, Knowsley's Menag., 2, pl. 8, 1846 (type in Liverpool Museum; cf. Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 523).

Penelope superciliosa (Cuvier MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 877, 1856—new name for *Penelope jacu-caca* Spix.

Penelope iacucaca Snethlage, Bol. Mus. Goeldi, 8, p. 56, 1914 (aviary spec.).

Range.—Wooded region of northeastern Brazil, in states of Bahia (Lamarão; Poçoens Encima) and Piauh (Lagõa Missão; Deserto).²

Conover Collection.—1: Brazil (Deserto, Piauh, 1).

¹ *Penelope jacu-caca* Spix, *P. ochrogaster* Pelzeln, and *P. pileata* Wagler form a natural group characterized by the narrow black streak separating the white superciliaries from the denuded sides of the head, and though exhibiting well-marked differences may eventually prove to be conspecific. Their ranges are yet incompletely known.

² The occurrence of the species in British Guiana reported by Cabanis (in Schomburgk, Reisen Brit. Guiana, 3, p. 745, "1848") as *Salpiza jacu-caca*, upon which all subsequent Guianan records (such as *Penelope iacucaca* Salvin, Ibis, 1886, p. 175, and Chubb, Bds. Brit. Guiana, 1, p. 26, 1916) are based, has never been confirmed, and Schomburgk's bird, which is not in the Berlin Museum, continues to remain a puzzle. Nor does the Brown Penelope occur anywhere in Lower Amazonia, whence Ihering (Cat. Faun. Braz., 1, p. 14, 1907) lists an example as being in the Museu Paulista. Taczanowski's identification (Orn. Pér., 3, p. 267, 1886) of Tschudi's *Penelope cristata* with the present species is likewise erroneous. All specimens obtained by field collectors are from Bahia or Piauh.

Additional material examined.—Bahia: Poçoens Encima, 1 (the type); Lamarão, 3.—Piauh: Lagoa Missão, near Parnaguá, 3.

Penelope ochrogaster Pelzeln. CHESTNUT-BELLIED GUAN.

Penelope ochrogaster Pelzeln, Orn. Bras., 3, pp. 282, 337, 1870—Rio das Frechas and Engenho do Pari, near Cuyabá, Matto Grosso (type, from Rio das Frechas, in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 527—near Cuyabá (monog.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 501, 1893—Engenho do Pari, Matto Grosso; idem, Handb. Game-Bds., 2, p. 229, pl. 38, 1897—near Cuyabá; Ihering, Cat. Faun. Braz., 1, p. 14, 1907—Matto Grosso; Hellmayr, Nov. Zool., 15, p. 99, 1908—Rio Araguaya, Goyáz; Naumburg, Bull. Amer. Mus. N. H., 60, p. 63, pl. 13, 1930—Descalvados, Matto Grosso; Peters, Bds. World, 2, p. 16, 1934—Matto Grosso and Goyáz; Pinto, Rev. Mus. Paul., 20, p. 35 (note 1), 1936—Barra do Rio São Domingos, Rio Paraná, Goyáz, and Pirapora, Rio São Francisco, Minas Geraes.

Range.—Interior of Brazil, from western Minas Geraes (Pirapora, Rio São Francisco) through southern Goyáz (Barra do Rio São Domingos, Rio Paraná; Leopoldina, Rio Araguaya) to Matto Grosso (Engenho do Pari and Rio das Frechas, near Cuyabá; Descalvados).¹

***Penelope pileata** Wagler. WHITE-HEADED GUAN.

Penelope pileata Wagler, Isis, 1830, col. 1109—State of Pará, Brazil (type in Berlin Museum); Des Murs, Icon. Ornith., livr. 4, pl. 23, 1845—"Pará"; Burmeister, Syst. Uebers. Th. Bras., 3, p. 338, 1856—"Pará" (ex Wagler); Pelzeln, Orn. Bras., 3, pp. 282, 340, 1870—Rio Madeira and Rio Vautá [=Rio Autaz], Amazonas (descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 527—"Pará," Rio Madeira, and Rio Vautá (monog.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 500, 1893 (same localities); idem, Handb. Game-Bds., 2, p. 228, 1897 (monog.); Ihering, Cat. Faun. Braz., 1, p. 14, 1907—"Matto Grosso" (errore), Rio Amazonas, and "Pará"; Hellmayr, Nov. Zool., 17, p. 418, 1910—Rio Madeira; Sneath, Bol. Mus. Goeldi, 8, p. 56, 1914 (descr.); Peters, Bds. World, 2, p. 16, 1934—lower Amazon Valley from "Manáos" and the Rio Madeira to "Pará."

Salpiza pileata Wagler, Isis, 1832, col. 1226.

Pipile pileata Reichenbach, Vollst. Naturg. Tauben, p. 153, pl. 271, fig. 2495, 1862—"Pará."

Penelope leucothrix (Natterer) and *P. comata* (Lichtenstein) Pelzeln, Orn. Bras., 3, p. 340, 1870 (quoted in the text from labels).

Range.—Lower Amazonia, south of the Amazon, from the Tapajóz west to the Rio Madeira region.

Conover Collection.—9: Brazil, Rio Tapajóz (Caxiricatuba, 2; Tauary, 3; Boim, 2; Pinhel, 2).

Penelope argyrotis olivaceiceps Todd.² OLIVE-CRESTED GUAN.

¹ *Material examined*.—Brazil: Rio das Frechas, 2; Engenho do Pari, 1; Descalvados, 1; Leopoldina, Rio Araguaya, Goyáz, 1.

² *Penelope argyrotis olivaceiceps* Todd: Nearest to the nominate race, but feathers of crest much darker and less brownish, olivaceous black not raw umber.

Penelope argyrotis olivaceiceps Todd, Proc. Biol. Soc. Wash., 45, p. 210, Nov. 26, 1932—San Rafael (near Cumanacoa), Sucre, Venezuela (type in Carnegie Museum, Pittsburgh); Peters, Bds. World, 2, p. 16, 1934 (range).

Penelope argyrotis subsp. Chapman, Amer. Mus. Nov., 191, p. 6, 1926—Neverí, Sucre, Venezuela.

Range.—Subtropical zone of northeastern Venezuela, in State of Sucre (San Rafael, Neverí).

****Penelope argyrotis argyrotis* (Bonaparte). BAR-TAILED GUAN.**

Pipile argyrotis Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 875, 1856—Caracas, Venezuela (cotypes, collected by Levraud, in Paris Museum examined by C. E. Hellmayr).

Penelope lichtensteinii G. R. Gray, Proc. Zool. Soc. Lond., 28, p. 269, 1860—Venezuela (type in British Museum).

Penelope montana (Lichtenstein MS.) Reichenbach,¹ Vollst. Naturg. Tauben, p. 151, 1862—Venezuela (type in Berlin Museum).

Penelope argyrotis Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 528—part, Caracas and “Bogotá”; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 501, 1893—part, spec. a, b, Venezuela and Bogotá; idem, Handb. Game-Bds., 2, p. 230, 1897—part, Venezuela; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 161, 1912—Cumbre de Valencia, Carabobo; Todd, Ann. Carnegie Mus., 8, p. 214 (in text), 1912—La Quiguas and La Cumbre de Valencia; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 31, 1922—La Azulita, Mérida.

Penelope argyrotis argyrotis Hellmayr and Conover, Auk, 49, p. 324, 1932—northern Venezuela to eastern Colombia (crit.); Peters, Bds. World, 2, p. 16, 1934 (range).

Range. Subtropical zone of northern Venezuela, from the vicinity of Caracas west to Mérida,² and eastern Andes of Colombia.³

Field Museum Collection.—1: Venezuela (Capas, Mérida, 1).

Conover Collection.—3: Venezuela (La Azulita, Mérida, 3).⁴

****Penelope argyrotis colombiana* Todd.⁵ SANTA MARTA GUAN.**

¹ *Penelope montana* (Licht.) Bonaparte (Compt. Rend. Acad. Sci. Paris, 42, p. 877, 1856) is a nomen nudum.

² *Penelope argyrotis* Beebe (Zoologica, N.Y., 1, p. 72, 1909) from Caño Colorado, Orinoco delta, can hardly pertain here, and is more likely to be *P. marail*, although the two species are very dissimilar.

³ We have no Colombian material and it is on Mr. Todd's authority that the east Colombian Andes are included in the range of typical *argyrotis*.

⁴ **Additional material examined.**—Venezuela: Caracas, 2 (the cotypes); Galipán, Cerro del Avila, 2; La Cumbre de Valencia, Carabobo, 1.

⁵ *Penelope argyrotis colombiana* Todd: Closely similar to *P. a. argyrotis*, but feathers of pileum narrower, apically slightly attenuated (instead of broad and bluntly rounded), dull grayish bronze (not raw umber), and for their whole length on both sides conspicuously edged with grayish white, while in the nominate

Penelope colombiana Todd, Ann. Carnegie Mus., 8, p. 213, 1912—La Taguas, Santa Marta, Colombia (type in the Carnegie Museum, Pittsburgh); idem and Carriker, l.c., 14, p. 173, pl. 2, 1922—Chirua, Valparaiso, Cincinnati, Las Taguas, Las Vegas, San Lorenzo, and San Miguel (habits)

Penelope argyrotis (not *Pipile argyrotis* Bonaparte) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 528—part, Santa Marta; Bangs, Proc. Biol. Soc. Wash., 12, p. 132, 1898—"Santa Marta"; Allen, Bull. Amer. Mus. N. H., 13, p. 126, 1900—El Libano.

Penelope argyrotis colombiana Hellmayr and Conover, Auk, 49, p. 325, 1932—Santa Marta region (crit.); Peters, Bds. World, 2, p. 16, 1934 (range).

Range.—Subtropical (and upper Tropical) zone of the Santa Marta region in northern Colombia.

Conover Collection.—2: Colombia (Vista Nieve, Santa Marta, 2).

****Penelope argyrotis barbata* Chapman.¹ BEARDED GUAN.**

Penelope barbata Chapman, Amer. Mus. Nov., 18, p. 3, Sept., 1921—Taraguacocha, Zaruma-Zaraguro Trail, Cordillera de Chilla, Prov. del Oro, Ecuador (type in the American Museum of Natural History, New York, examined by Boardman Conover); idem, Bull. Amer. Mus. N. H., 55, p. 154, 1926—Taraguacocha and San Lucas, Ecuador.

(?) *Penelope sclateri* (not of Gray) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 243—Tambillo, Peru; idem, l.c., 1882, p. 48—Tamiapampa; idem, Orn. Pér., 3, p. 269, 1886—part, Tambillo and Tamiapampa, Peru.²

race only forehead and anterior crown show white margins. The silvery white superciliaries of *argyrotis* are replaced by grayish edges; the feathered malar stripe—strikingly silvery white in the typical form—is dull brownish, the feathers being but obsoletely edged with ashy grayish; hind neck and mantle more profusely marked with buffy white (instead of pure white) lateral edges; the cinnamonaceous tail-tips slightly more extensive and darker in tone.

¹ *Penelope argyrotis barbata* Chapman: Nearest to *P. a. argyrotis*, but much darker throughout; chin and upper throat feathered; pale margins to both upper and under parts much reduced and grayish rather than white, becoming evanescent on the wing coverts; rump, tail coverts, and flanks brighter, more cinnamon-brown; lower breast and abdomen mottled or vermiculated with blackish.

On comparing three specimens of *P. inexpectata* with the type of *P. barbata*, the junior author noticed that they differ only by slightly more grayish sides of the face and less densely feathered throat, but these trifling variations are probably individual rather than racial. This conclusion is supported by the fact that two specimens from San Lucas are not quite alike in color or extent of feathering. The describer of *P. inexpectata* evidently was unaware of the existence of an Ecuadorian form, to which no reference is made in his original account.

Additional material examined.—Ecuador: Taraguacocha, 1 (the type); San Lucas, 2.—Peru: Porculla Pass, 1; Palambra, 2.

² According to Taczanowski (l.c., p. 270), the north-Peruvian birds differ from those of central Peru (Chilpes, Pumamarca;=*P. "sclateri" plumosa*) by having long rufous tail-ends, and the white edgings restricted to the forehead, whereas pileum and hind neck exhibit but narrow grayish fringes. This characterization shows the birds from Tambillo and Tamiapampa to belong to the *P. argyrotis* group, but whether they are the same as *P. a. barbata* or a separable form with more denuded throat can only be determined by actual comparison.

Penelope argyrotis (not *Pipile argyrotis* Bonaparte) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 502, 1893—part, spec. c, d, San Lucas, Ecuador; idem, Handb. Game-Bds., 2, p. 230, 1897—part, Ecuador.

Penelope inexpectata Carriker, Proc. Acad. Nat. Sci. Phila., 86, p. 317, June 25, 1934—Porculla Pass, Lambayeque, Peru (type in the Academy of Natural Sciences of Philadelphia).

Penelope argyrotis barbata Hellmayr and Conover, Auk, 49, p. 326, 1932—Ecuador (crit.); Peters, Bds. World, 2, p. 16, 1934—Ecuador.

Range.—Subtropical and humid Temperate zones of southwestern Ecuador (San Lucas; Taraguacocha, Prov. El Oro; Malacatos, Loja) and northwestern Peru (Porculla Pass, Lambayeque; Palambla).

Conover Collection.—5: Ecuador (Malacatos, Loja, 4; Huaico, Loja, 1).

Genus ORTALIS Merrem¹

Ortalida [accusative case]=*Ortalis* [nominative] Merrem, Av. Rar. Icon. Descr., fasc. 2, p. 40 (in text), 1786—type, by monotypy, *Phasianus motmot* Linnaeus.

Ortalida "Merrem" Cuvier, Règne Anim., 1, p. 442, "1817" [=Dec. 7, 1816]—type, by monotypy, *Phasianus motmot* Linnaeus.

Ortaldia Fleming, Phil. Zool., 2, p. 230, 1822—type, by monotypy, *Phasianus motmot* Linnaeus.

Penelops (not of Kaup, 1829) Reichenbach, Av. Syst. Nat., p. xxvi, 1852—type, by monotypy, "*Penelope albiventris* Gould"=*Penelope albiventer* Lesson.

Penelopsis Reichenbach, Vollst. Naturg. Tauben, p. 147, 1862—type, by present desig., *Penelope adspersa* Tschudi.

**Ortalis motmot motmot* (Linnaeus). GUIANA CHACHALACA.

Phasianus motmot Linnaeus, Syst. Nat., 12th ed., 1, p. 271, 1766—chiefly based on "Le Faisan de la Guiane" Brisson, Orn., 1, p. 270, pl. 26, fig. 2; Guiana=Cayenne (type in coll. of M. Réaumur).

Phasianus katraca Boddaert, Tabl. Pl. Enl., p. 9, Dec., 1783—based on "Faisan, de la Guiane" Daubenton, Pl. Enl., pl. 146.

Phasianus Parraka Gmelin, Syst. Nat., 1, (2), p. 740, 1789—based on Buffon, Bajon (Mém. Hist. Cayenne et Guiane Franç., 1, pp. 374-382, pls. 1, 2, 1777, "Le Parraqua"), etc.; French Guiana.

Phasianus Parraqua Latham, Ind. Orn., 2, p. 632, 1790—based on Buffon, etc.; Cayenne.

Penelope parrakoua Temminck, Hist. Nat. Fig. Gall., 3, pp. 85, 695, 1815—part, descr. and hab. Cayenne.

Penelope motmot Wagler, Isis, 1830, col. 1111—Cayenne and Guiana.

¹Ganix Rafinesque (Anal. Nat., p. 69, 1815), introduced without characterization for "Guan" Lac [épède], has been quoted as a synonym.

Ortalida motmot Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 744, 1849—British Guiana; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 532—Cayenne, British Guiana, Rio Negro, and Rio Branco (monog.); Pelzeln, Orn. Bras., 3, p. 285, 1870—Rio Negro (Manãos, below Castanheiro, Marabitanas) and Rio Branco (Forte do São Joaquim, Serra Arimani); idem, Ibis, 1873, p. 119—Cayenne; C. B. Brown, Canoe and Camp Life Brit. Guiana, p. 373, 1876—Wahmarra Mountains, upper Demerara; Goeldi, Ibis, 1897, p. 161—Amapá, Brazil.

Penelope Paraca Schomburgk, Reisen Brit. Guiana, 2, p. 31, 1848—Takutú River.

Penelope Parrakua Burmeister, Syst. Uebers. Th. Bras., 3, p. 341, 1856—Guiana and "Colombia," errore (part, adult).

Ortalís motmot Salvin, Ibis, 1886, p. 175—Bartica Grove and Roraima, British Guiana; W. L. Sclater, Ibis, 1887, p. 317—Maccasseema, Rio Pomeeroon, British Guiana; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 505, 1893—British Guiana (Demerara, Roraima, Bartica Grove) and Brazil (Rio Negro); idem, Handb. Game-Bds., 2, p. 235, 1897 (monog.); Goeldi, Ibis, 1897, p. 156—Counany, Brazil; Berlepsch and Hartert, Nov. Zool., 9, p. 120, 1902—Nericagua, Orinoco, and La Prición, Caura, Venezuela; Hellmayr, l.c., 14, p. 39, 1907—Obidos, Brazil; Berlepsch, l.c., 15, p. 297, 1908—Cayenne, Approuague River, and Ipousin, French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 56, 1914—Rio Maecurú and Monte Alegre, Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 356, 1916—upper Orinoco above Atures, San Feliz River, and La Prición, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 1, p. 27, 1916—Abary River, upper Takutú Mountains, Supenaam, Kamakabra Creek, etc.; Beebe, Trop. Wild Life, 1, p. 127, 1917—Bartica; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 40, 1918—Paramaribo, Surinam; Chapman, Bull. Amer. Mus. N. H., 63, p. 61, 1931—Arabupu, Roraima.

Ortalís katraca Ihering, Cat. Faun. Braz., 1, p. 15, 1907 (range).

Ortalís motmot motmot Peters, Bds. World, 2, p. 17, 1934 (range).

Range.—French, Dutch, and British Guiana, southern Venezuela (Orinoco-Caura basin), and northern Brazil, south to the north bank of the Amazon, west to the Rio Negro.¹

Field Museum Collection.—15: Venezuela (Piacoa, Amacuro, 2); British Guiana (Mahacai, 2; Rockstone, Essequibo River, 5; Middle Base Camp, upper New River, 1); Surinam (Paramaribo, 1); Brazil (Serra da Lua, near Bôa Vista, Rio Branco, 4).

Conover Collection.—13: British Guiana (Kartabo, 3; Rockstone, Essequibo River, 3; Oko Mountains, Essequibo, 1); Brazil (Lago Cupeua, near Obidos, 4; Boca de Channel Piava, 2).

¹ Specimens from the Rio Negro and Obidos appear to be identical with a Guianan series, though a few individuals have some bronzy olive at the base of the outer web of the outermost rectrix, much as in *O. m. ruficeps*.

Additional material examined.—French Guiana: Cayenne, 4; Approuague River, 1; Ipousin, 1.—British Guiana: Bartica Grove, 3.—Venezuela; Nericagua, Orinoco, 1; La Prición, Caura, 1.—Brazil: Forte do São Joaquim, Rio Branco, 1; Obidos, 5; Manãos, Rio Negro, 4.

****Ortalis motmot ruficeps* (Wagler).¹ RUFIOUS-HEADED CHACHALACA.**

Penelope ruficeps Wagler, Isis, 1830, col. 1111—Brazil (type in Berlin Museum).

Ortalis ruficeps Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 533 (Brazil (crit.)); Allen, Bull. Essex Inst., 8, p. 82, 1876—no locality given, but probably Santarém.

Ortalis motmot (not *Phasianus motmot* Linnaeus) Chapman and Riker, Auk, 8, p. 162, 1891—Santarém.

Ortalis ruficeps Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 506, 1893 (ex Wagler); idem, Handb. Game-Bds., 2, p. 236, 1897 (ex Wagler); Ihering, Cat. Faun. Braz., 1, p. 15, 1907—"Pará."

Ortalis motmot ruficeps Todd, Proc. Biol. Soc. Wash., 45, p. 212, 1932—Santarém and Conceição do Araguaia, Pará (crit.); Peters, Bds. World, 2, p. 17, 1934 (range).

Range.—Northern Brazil, on the banks of the Rio Tapajóz south to Conceição do Araguaia (8° south lat.), State of Pará.

Conover Collection.—8: Brazil, Rio Tapajóz (Caxiricatuba, 2; Santarém, 1; Tauary, 2; Pinhel, 3).

****Ortalis superciliaris* (Gray).² SUPERCILIATED CHACHALACA.**

Penelope araucuan Spix, Av. Spec. Nov. Bras., 2, p. 56, pl. 74, 1825—part, descr. of female and hab. "in locis aquis provinciae Maranhão ad flumen Itapicurú"; Wagler, Isis, 1830, col. 1112—"Brasilia, versus flumen Amazonum," errore (descr. spec. in Munich Museum).

Ortalis superciliaris G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 10, 1867—"South America" (type, an aviary bird, in the British Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 537 (crit.); Pelzeln, Orn. Bras., 3, p. 285, 1870—Pará, Rio Muriá, and Praia do Cajútuba, Pará.

¹ *Ortalis motmot ruficeps* (Wagler): Similar to the nominate race, but decidedly smaller; rufous of head and neck brighter, chestnut rather than bay; tail paler, the outer web of the outermost rectrix always more or less bronzy olive at the base. Wing, 175–190 (against 200–220); tail, 190–210 (against 240–260); bill, 22–24 (against 24–29).

Additional material examined.—Brazil: Santarém, 2.

² Recent comparison by the senior author with a good series of skins from the Pará region shows *O. superciliaris* to be an earlier name for *O. spixi*. The type (Brit. Mus. Reg. No. 55.12.19.314), an adult bird in good condition save that the tips of the rectrices are somewhat abraded owing to its having been kept in confinement, agrees particularly well with an adult male collected by Natterer on the Rio Muriá, east of Pará, in having very conspicuous buffy white superciliaries and whitish edges to the feathers of the forehead, while the plumage on foreneck and chest, in both, is apically faintly edged with grayish white. The three lateral rectrices are for the greater part rufous, and the fourth pair has a large rufous apical spot, exactly as in a male from Pará (Nov. 2, 1834). The series from the Pará district proves beyond doubt that the light markings on the forepart and sides of the head are subject to considerable individual variation, there being specimens with well-defined whitish or buffy superciliaries sometimes united in front, and others with mere traces of them. In justice to Ogilvie-Grant it may

Ortalida araucuan (not *Penelope araucuan* Spix) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 533—Maranhão and Pará (descr.).

Ortalís araucuan Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 506, 1893—Pará; idem, Handb. Game-Bds., 2, p. 236, 1897 (monog.); Goeldi, Ibis, 1903, p. 500—Rio Capim, Pará; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 88, 1910—Riacho da Raiz, Maranhão, and Barra do Cocal, Piauí; Snethlage, Bol. Mus. Goeldi, 8, p. 57, 1914—Mazagão (Rio Tocantins) and Rio Capim, Pará.

Ortalís superciliaris Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 511, 1893; idem, Handb. Game-Bds., 2, p. 244, 1897; Peters, Bds. World, 2, p. 18, 1934.

Range.—Northern Brazil south of the Amazon, from the Tocantins (Mazagão) east through Maranhão to the Rio Parnahyba and south to the extreme northern section of Goyáz (Santo Antonio).

Conover Collection.—7: Brazil (Codó, Cocos, Maranhão, 1; Santo Antonio, Rio Tocantins, Goyáz, 1; Buenos Aires, Rio Acará, 1; Serraria Cabrol, Rio Acará, 1; Resacca, Rio Capim, 2; Ipomonga, Rio Capim, 1).

****Ortalís guttata araucuan* (Spix). WHITE-BELLIED CHACHALACA.**

Penelope araucuan Spix, Av. Spec. Nov. Bras., 2, p. 56, 1825—part, descr. of male; “ad pagum St. Domingo districtus Minas Novas,” Minas Geraes, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 693, 1906).

Penelope albiventris Wagler, Isis, 1830, col. 1111—“Brasilia, versus flumen Amazonum,” errore (type in Munich Museum).¹

Ortalís spixi Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 695, May 20, 1906—Rio Itapicuré, Maranhão (type in Munich Museum); Ihering, Cat. Faun. Braz., 1, p. 15, 1907—Maranhão and Pará; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 81, 97, 1912—Peixe-Boi, E.F.B., and Ipitinga, Rio Acará (Pará localities); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 196, 1925—Riacho da Raiz, below União, Maranhão, and Barra do Cocal, lower Parnahyba, Piauí; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Castanhal, Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 474, 1929—Maranhão (Codó, Cocos) and Goyáz (Santo Antonio, lower Tocantins); Peters, Bds. World, 2, p. 17, 1934 (range).

be mentioned that the two examples of “*O. araucuan*” from Pará, which at the time of his writing were in the British Museum, happen to be devoid of distinct superciliaries. The pale tipping to the feathers of foreneck and chest is likewise of no consequence and may be indicated to a varying degree or even altogether absent. Birds from Maranhão and Piauí, on average, have the mid-belly slightly lighter, more whitish (less grayish or buffy).

Additional material examined.—Pará, 5; Peixe-Boi, 1; Rio Muriá, 2; Cajutubá, 1; Ipitinga, Rio Acará, 1.—Maranhão: Rio Itapicuré, 2; Miritiba, 2; Boa Vista, 3; Riacho da Raiz, Rio Parnahyba, 1.—Piauí: Barra do Cocal, Rio Parnahyba, 1.

¹ The type is the same specimen that served as basis for Spix's description of the male of his *P. araucuan*.

Penelope Aracuan Wied, Beitr. Naturg. Bras., 4, (2), p. 549, 1833—south to the Rio Doce [Espírito Santo], thence north on the Mucurí, at Alcobaca, and in the Sertão of Bahia and [eastern] Minas Geraes; Burmeister, Syst. Uebers. Th. Bras., 3, p. 340, 1856—part, adult; northern Minas Geraes, Bahia, and Pernambuco.

Ortallida Aracuan Pelzeln, Orn. Bras., 3, p. 285, 1870—Bahia (spec. examined).

Ortallida aracuan Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 54—Minas Geraes (not in the southern section).

Ortallida albiventris Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 535—Bahia and Minas Geraes (descr.).

Ortalis albiventris Forbes, Ibis, 1881, p. 357—Macuca and Garanhuns, Pernambuco; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 508, 1893—Pernambuco to Minas Geraes; idem, Handb. Game-Bds., 2, p. 239, 1897 (monog.); Ihering, Cat. Faun. Braz., 1, p. 15, 1907 (range).

Ortalis aracuan Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 693, 1906—Minas Geraes and Bahia (monog.).

Ortalis aracuan Pinto, Rev. Mus. Paul., 19, p. 57, 1935—Rio Gongogy (Fazenda Santa Maria) and Corupéba, Bahia (habits).

Ortalis aracuan aracuan Peters, Bds. World, 2, p. 17, 1934 (range).

Range.—Eastern Brazil, from Pernambuco south through Bahia and adjacent parts of eastern Minas Geraes to Espírito Santo (Rio Doce).¹

Field Museum Collection.—1: Brazil (Macaco Secco, near Andaraí, Bahia, 1).

****Ortalis guttata squamata* (Lesson).² SCALY CHACHALACA.**

¹ A doubtful synonym is *Ortallida caracco* Wagler (Isis, 1832, col. 1227 [note]—ex *Penelope* sp. Poeppig, in Froriep's Notiz. Geb. Natur- und Heilk., 31, No. 681, Beilage, p. 8, Oct., 1831; type in Leipzig Museum examined; cf. Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 571, 1856; and *Ortalis caracco* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 694, 1906). The type, said to have been collected at Pampayaco, near the sources of the Rio Huallaga, Dept. Huánuco, Peru, is closely similar to Bahia specimens, and merely differs by the rump being only laterally rufous, but medially dark brown like the upper back. Nothing similar has ever been taken again in Peru, the type being very different from *O. g. guttata*, well known as an inhabitant of Huánuco Province, and it seems almost incredible that a second species of *Ortalis* should occur in that region. Besides, the extent of rufous on the rump is individually variable in allied species, e.g., *O. superciliaris*, and this rather insignificant divergency might disappear, if a more satisfactory series of *aracuan* from eastern Brazil were available for comparison. We cannot but seriously question the Peruvian origin of the type specimen, and as Poeppig, on his South American trip, also stopped at various Brazilian ports, a transposition of labels does not seem to be wholly beyond possibility.

Additional material examined.—Brazil: Pernambuco, 1; Lamarão, Bahia, 1; Bahia, 3.

² *Ortalis guttata squamata* (Lesson) is easily distinguished from *O. g. aracuan* by lacking the plain white area on breast and abdomen, these parts being wood brown with grayish white apical edges; by brown or rufescent instead of whitish to buffy tibial feathers; much darker, nearly chestnut under tail coverts; duller

Ortalida squamata Lesson, Dict. Sci. Nat., 59, p. 195, 1829—“l'Amérique méridionale” (type, from Santa Catharina, Brazil, in Paris Museum examined); idem, Traité d'Orn., livr. 7, p. 481, Apr., 1831—“Brésil”; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 535—Santa Catharina (descr.); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 179, 1885—Taquara, Arroio Grande, and Linha Pirajá, Rio Grande do Sul (crit.).

Ortalis squamata Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 509, 1893—Rio Grande do Sul and Santa Catharina; idem, Handb. Game-Bds., 2, p. 240, 1897 (monog.); Ihering, Rev. Mus. Paul., 3, p. 411, 1899—São Paulo (occurrence doubtful); idem, Annuario Est. Rio Grande do Sul, 16, p. 147, 1899—Mundo Novo and Pedras Brancas, Rio Grande do Sul; Hellmayr, Nov. Zool., 13, p. 350, 1906—Santa Catharina and Rio Grande do Sul (crit., note on type); Ihering, Cat. Faun. Braz., 1, p. 16, 1907—São Lourenço, Rio Grande do Sul.

Ortalis araucuan squamata Peters, Bds. World, 2, p. 17, 1934 (range).

Range.—Extreme southeastern Brazil, in states of Santa Catharina and Rio Grande do Sul.

Conover Collection.—1: Brazil (Rolante, Rio Grande do Sul, 1).

****Ortalis guttata subaffinis* Todd.¹ BOLIVIAN CHACHALACA.**

Ortalis guttata subaffinis Todd, Proc. Biol. Soc. Wash., 45, p. 211, Nov. 26, 1932—Buenavista, [Santa Cruz], Bolivia (type in Carnegie Museum, Pittsburgh); Peters, Bds. World, 2, p. 18, 1934—eastern Bolivia.

Ortalida guttata (not *Penelope guttata* Spix) Gray, List Spec. Bds. Brit. Mus., 5, p. 11, 1867—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 536—part, Bolivia; Burmeister, l.c., 1871, p. 701—Santa Cruz de la Sierra, Bolivia; Sclater and Salvin, l.c., 1879, p. 640—Tilotilo, Yungas.

Ortalis guttata Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1889—“lower Beni,” Bolivia; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 510, 1893—part,

rufescent pileum, etc. It much more resembles *O. g. guttata*, of Upper Amazonia, but may be separated by unspotted lower throat; the shape of the light apical markings on foreneck and chest, which are more in the form of scaly edgings than spots; uniform rufescent brown upper part of the head, which in the nominate race is dusky or blackish brown with grayish spots on forehead and superciliary region, etc. If we are to express natural affinities by nomenclature, *O. araucuan*, *O. squamata*, and *O. guttata* may well be united in one specific entity, but it will not do to group the two first-named together and keep the third one separate.

Additional material examined.—Santa Catharina: unspecified, 1 (the type); Blumenau, 1; Jaraguá, 1.—Rio Grande do Sul: Taquara do Mundo Novo, 2; Linja Pirajá, 1.—“Brazil,” 2.

¹*Ortalis guttata subaffinis* Todd: “Similar to *O. g. guttata*, but general color of upper parts paler, averaging more olivaceous, less brownish, and pileum and hind neck decidedly paler, more grayish, less sooty.”

There seems to be great variation in this bird due to wear and fading. In general, a series of seven from Bolivia seem to average lighter on the upper parts, especially on hind neck and pileum. They are also lighter below, this being most noticeable on the foreneck and chest, where the white markings are less distinct, because of the lighter, more olivaceous background.

Additional material examined.—Bolivia: San Antonio, La Paz, 1; San Mateo, Yungas de Cochabamba, 1.

spec. e, Tilotilo, Bolivia; idem, Handb. Game-Bds., 2, p. 241, 1897—part, Bolivia.

Range.—Tropical zone of eastern Bolivia.

Conover Collection.—7: Bolivia, Santa Cruz (Buenavista, 5; Rio Yapacani, 2).

****Ortalis guttata guttata* (Spix). SPOTTED CHACHALACA.**

Penelope guttata Spix, Av. Spec. Nov. Bras., 2, p. 55, pl. 73, 1825—Rio Solimões, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 691, 1906); Wagler, Isis, 1830, col. 1112—Rio Amazonas (descr. spec. typ.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 341, 1856 (ex Wagler).

Ortalis guttata Selater, Proc. Zool. Soc. Lond., 26, p. 76, 1858—Rio Napo, Ecuador; Selater and Salvin, l.c., 1869, p. 598—Cosnipata, Cuzco, Peru; idem, l.c., 1870, p. 536—part, Ecuador (Rio Napo), Peru (Cosnipata), and Brazil (Matto Grosso and Rio Madeira); Taczanowski, l.c., 1874, p. 558—Monterico, Peru; idem, l.c., 1882, p. 56—Chirimoto, Peru; idem, Orn. Pér., 3, p. 278, 1886—Peru (Monterico, Chirimoto) (crit.); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 38, 1900—Gualaquiza, Ecuador.

Ortalis guttata Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 510, 1893—part, spec. b-d, l, Ecuador (Sarayacu), Peru (Iquitos), and Brazil (Matto Grosso); idem, Handb. Game-Bds., 2, p. 241, 1897—part, Ecuador, Peru, and Brazil; Goodfellow, Ibis, 1902, p. 229—upper Napo and tributaries, Ecuador; Ihering, Rev. Mus. Paul., 6, p. 451, 1905—Rio Jurua, Brazil; idem, Cat. Faun. Braz., 1, p. 16, 1907—Rio Jurua (range); Snethlage, Journ. Orn., 56, p. 23, 1908—Bom Lugar and Canacury, Rio Purús, Brazil; Hellmayr, Nov. Zool., 17, p. 418, 1910—Calama, Rio Madeira, and Jamarýsinho, Rio Machados, Brazil; Snethlage, Bol. Mus. Goeldi, 8, p. 57, 1914—Rio Purús; Chubb, Ibis, 1919, p. 19—San Ramón, Rio Perené, Junín, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 44, 1921—Rio Cosireni, Urubamba, Peru.

Penelope adpersa Tschudi, Arch. Naturg., 9, (1), p. 386, 1843—Peru (type in Neuchâtel Museum); idem, l.c., 10, (1), p. 309, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 290, 1846—montañas of Peru.

Ortalis guttata adpersa Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 45—La Merced and Garita del Sol, Junín, Peru (crit.); idem, Ornith., 13, p. 100, 1906—Idma, Urubamba, Peru; Peters, Bds. World, 2, p. 18, 1934 (range).

Ortalis guttata guttata Chapman, Bull. Amer. Mus. N. H., 55, p. 155, 1926—Rio Napo, Macas region, Rio Suno, and below San José, Ecuador; Naumburg, l.c., 60, p. 64, 1930—Matto Grosso; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 250, 1930—Vista Alegre and Chinchao, Huánuco, Peru (crit.); Peters, Bds. World, 2, p. 18, 1934 (range).

Ortalis albigularis (not *Penelope albigularis* Wagler) Pelzeln, Orn. Bras., 3, p. 286, 1870—Matto Grosso (Engenho do Gama, São Vicente, Forte do Príncipe) and Rio Madeira (Salto do Girão, Borba).

Range.—Amazonian Ecuador and Peru south to the Urubamba region, and east through western Brazil to the Rio Tapajóz, south along the Rio Madeira to northwestern Matto Grosso.¹

Conover Collection.—22: Ecuador (Rio Catapiño, 1; Concepción, 6; Cerro Quataraca, Loreto, 1; Ouca Yaco, Loreto, 1; Suno, Loreto, 1); Peru (Vista Alegre, 1; Chinchao, 1; Rio Ucayali, 1); Brazil (João Pessôa, Rio Juruá, 3; Labrea, Rio Purús, 3; Canutama, Rio Purús, 3).

****Ortalis guttata caquetae* Chapman.² CAQUETÁ CHACHALACA.**

Ortalis guttata caquetae Chapman, Amer. Mus. Nov., 96, p. 2, Nov. 19, 1923
—La Morelia, Caquetá, Colombia (type in the American Museum of Natural History, New York); Peters, Bds. World, 2, p. 18, 1934 (range).

Ortalida guttata (not *Penelope guttata* Spix) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 536—part, Bogotá.

Ortalis guttata Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 510, 1893—part, spec. a, Bogotá; idem, Handb. Game-Bds., 2, p. 241, 1897—part, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 197, 1917—La Morelia, Caquetá, Colombia.

Range.—Tropical zone of eastern Colombia (La Morelia, Caquetá; also in native Bogotá collections).

Field Museum Collection.—1: Colombia (Bogotá, 1).

***Ortalis guttata columbiana* Hellmayr.³ COLOMBIAN CHACHALACA.**

¹ After examining a fair series from Brazil, Ecuador, and Peru, we cannot see our way clear of separating a Peruvian race (*adspersa*). Birds from the Rio Madeira and Matto Grosso seem to be exactly like others from the Amazon, the amount of gray on forehead and superciliary region as well as the intensity of the brown color on pileum, foreneck, and chest varying individually within the same locality. East Ecuadorian birds, for instance, are matched in the blackish ground color of the chest by others from the Rio Arapiuns, Brazil, and those from Peru are in no way distinguishable from Amazonian specimens picked at random.

Additional material examined.—Peru: Rio Samiría, 1; La Merced, Chanchamayo, 1; Occobamba, Cuzco, 1; Callanga, Cuzco, 1.—Brazil: Rio Solimões, 1; Casa Nova, Rio Arapiuns (Rio Tapajóz), 2; Borba, Rio Madeira, 3; Calama, Rio Madeira, 1; Forte do Principe, Rio Guaporé, 2; São Vicente, Matto Grosso, 1; Engenho do Gama, Matto Grosso, 1.

² *Ortalis guttata caquetae* Chapman: Similar to *O. g. guttata*, but perhaps distinguishable by browner (less olivaceous) upper parts and slightly paler ground color of forehead and breast.

Judging from two native "Bogotá" skins—the only ones we have seen—this is rather an unsatisfactory race.

³ *Ortalis guttata columbiana* Hellmayr, though readily distinguished by larger size, wholly ashy gray pileum passing into a paler tone anteriorly, and narrower, marginal rather than spot-like pale markings on foreneck and chest, is clearly the Magdalena Valley representative of *O. guttata*.

Material examined.—Colombia: Bogotá, 4; El Chicoral, 1.

Ortalis columbiana Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 694, May 20, 1906—Colombia=Bogotá (type in Vienna Museum).

Ortalis caracco (not of Wagler) Pelzeln, Orn. Bras., 3, p. 285 (note 3), 1870—Bogotá and "Panama" (lapsu); Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 536—Bogotá (monog.).

Ortalis caracco Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 509, 1893—part, spec. b, "U. S. of Colombia"—Bogotá; idem, Handb. Game-Bds., 2, p. 241, 1897—Colombia (part); Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 302, 1899—Magdalena River.

Ortalis columbiana columbiana Chapman, Bull. Amer. Mus. N. H., 36, p. 196, 1917—Colombia (La Candela, near San Agustín, Andalucia; Chicoral, near Honda; El Alto de la Paz, near Bogotá); Peters, Bds. World, 2, p. 18, 1934 (range).

Range.—Tropical and Subtropical zones of the upper Magdalena Valley, eastern Colombia.

***Ortalis guttata caucae* Chapman.¹ CAUCA CHACHALACA.**

Ortalis columbiana caucae Chapman, Bull. Amer. Mus. N. H., 33, p. 168, March 19, 1914—Guenguë, Cauca River, twenty miles south of Cali, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 196, 1917—Guenguë, La Manuelita, and San Antonio, Cauca, Colombia; Peters, Bds. World, 2, p. 18, 1934 (range).

Ortalis guttata (not *Penelope guttata* Spix) Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 544—Concordia and Santa Elena, Cauca, Colombia.

Ortalis caracco (not *Ortalis caracco* Wagler) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 509, 1893—part, spec. c, Concordia; idem, Handb. Game-Bds., 2, p. 24, 1897—Colombia (part).

Range.—Tropical and lower Subtropical zones of the Cauca Valley, western Colombia.

****Ortalis wagleri griseiceps* van Rossem.² SONORA CHACHALACA.**

Ortalis wagleri griseiceps van Rossem, Bull. Mus. Comp. Zool., 77, p. 431, Dec., 1934—Alamos, Sonora, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

Ortalis wagleri (not of Gray) van Rossem, Trans. San Diego Soc. N. H., 6, p. 244, 1931—Guiricoba and Chinobampo, Sonora; Peters, Bds. World, 2, p. 18, 1934—part, southern Sonora.

¹ *Ortalis guttata caucae* Chapman: Very similar to *O. g. columbiana*, but with forehead little, if any paler than the crown; lower back, rump, flanks, and under tail coverts more strongly rufescent; feet horn color instead of red.

Material examined.—Colombia: Concordia, Cauca, 1.

² *Ortalis wagleri griseiceps* van Rossem: Similar to the nominate race, but head and neck slightly paler and grayer; feathers of crown uniform pale slate gray, instead of dark slate gray on the inner, and slate gray on the outer webs; mantle slightly grayer in fresh, and decidedly so in worn plumage (van Rossem, l.c.).

The racial characters are hardly evident in our specimens, which are, however, very worn.

Range.—Extreme southern Sonora, south for an undetermined distance into northern Sinaloa, western Mexico.

Conover Collection.—10: Mexico (Guiracoba, Sonora, 6; El Molino, Sinaloa, 4).

****Ortalis wagleri wagleri* (G. R. Gray). WAGLER'S CHACHALACA.**

Ortalia wagleri G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 12, 1867—"California" and Mexico (cotypes, from western Mexico,¹ in British Museum); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 534—near Mazatlan, Mexico (monog.); Lawrence, Mem. Bost. Soc. N. H., 2, p. 306, 1874—Mazatlan.

Ortalis wagleri Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 507, 1893—Presidio de Mazatlan, Sinaloa, and San Blas and Santiago, Tepic; idem, Handb. Game-Bds., 2, p. 237, pl. 39, 1897—Sinaloa and Tepic; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 279, pl. 72, 1902—Sinaloa (Mazatlan, Presidio) and Tepic (San Blas, Santiago); Miller, Bull. Amer. Mus. N. H., 21, p. 343, 1905—southern Sinaloa (Escuinapa, Juanna Gomez River, Los Pielas, Papachal, Jalpa, Arroyo de Limones); idem, l.c., 22, p. 163, 1906—Sayupa, Durango; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 6, 1927—Labrados, Sinaloa; Peters, Bds. World, 2, p. 18, 1934 (part).

Ortalis vetula maccalli (not *Ortalia maccalli* Baird) Bailey, Auk, 23, p. 385, 1906—near San Blas, Nayarit.

Range.—Western Mexico, from southern Sinaloa (Escuinapa, etc.) and the adjacent parts of Durango (Sayupa) south to Nayarit (Tepic, Santiago, San Blas).

Conover Collection.—2: Mexico (Mazatlan, Sinaloa, 2).

****Ortalis vetula poliocephala* (Wagler).² GRAY-HEADED CHACHALACA.**

Penelope poliocephala Wagler, Isis, 1830, col. 1112—Mexico (part, descr. of adult; type in Berlin Museum).

Ortalia poliocephala Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 364—"vicinity of Mexico City" (crit.); idem, l.c., 1870, p. 537—tableland of Mexico (Real Arriba; vicinity of Mexico City) and Colima (Rio Armeria, Rio Tupila); Lawrence, Mem. Bost. Soc. N. H., 2, p. 306, 1874—Rio Tupila, Colima; idem, Bull. U. S. Nat. Mus., 4, p. 45, 1876—southern Oaxaca (Tapana, Barrio, Tehuantepec City).

Ortalia leucogastra (not *Penelope leucogastra* Gould) Sclater, Proc. Zool. Soc. Lond., 27, p. 391, 1859—Rio Grande, Pacific coast region of Oaxaca.

¹ San Blas, Nayarit, suggested as type locality by Van Rossem (Bull. Mus. Comp. Zool., 77, p. 431, 1934).

² *Penelope vociferans* Gmelin (Syst. Nat., 1, [2], p. 735, 1789), exclusively based on "Chachalacametl" of Hernandez, is unidentifiable.

Ortalis poliocephala Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 175, 1886—Chachapa, Puebla; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 511, 1893—Tehuantepec and Salina Cruz, Oaxaca; idem, Handb. Game-Bds., 2, p. 244, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 279, 1902—Mexico (Real Arriba, Chachapa, Puebla; Rio Armeria and Rio Tupila, Colima; Rio Grande, Tapana, Barrio, Tehuantepec City, Torullo, Tapantepec, and Salina Cruz, Oaxaca; Tonalá, Chiapas); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 386, 1928—Chivelá, Oaxaca.

Ortalis vetula poliocephala Griscom, Bull. Mus. Comp. Zool., 75, p. 372, 1934—Coyucá, Guerrero (crit.); Peters, Bds. World, 2, p. 19, 1934—Colima to western Chiapas.

Ortalis poliocephala subsp. *longicauda* Lampe, Jahrb. Nassau Ver. Naturk., 59, p. 232, 1906—"Mexico" (type in Wiesbaden Museum).¹

Range.—Pacific side of southwestern Mexico, from Colima south through Guerrero and Oaxaca to western Chiapas (Tonalá), north to the southern part of Puebla (Real Arriba, Chachapa).

Field Museum Collection.—1: Mexico (San Gerónimo, Oaxaca, 1).

****Ortalis vetula mcalli* (Baird). TEXAN CHACHALACA.**

Ortalida McCalli Baird, in Baird, Cassin, and Lawrence, Rep. Expl. Surv. Pac. R. R., 9, p. 611, 1858—Boquilla, Nuevo León, Mexico (type in U. S. National Museum).

Ortalida vetula (not *Penelope vetula* Wagler) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 5, p. 116, 1851—Rio Grande, Texas (descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 364—road to Tampico, Tamaulipas; idem, l.c., 1870, p. 538—part, Rio Grande, Texas.

Ortalida poliocephala (not *Penelope poliocephala* Wagler) Cassin, Illust. Bds. Calif., Texas, etc., p. 267, pl. 44, 1855—Texas and Nuevo León.

Ortalis maccalli Dresser, Ibis, 1866, p. 24—Matamoros and Brownsville, Texas (habits).

Ortalis vetula Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 512, 1893—part, spec. a-n, Texas (Brownsville), Tamaulipas (above Ciudad Victoria, Aldama, Tampico), and San Luis Potosi (Valles); idem, Handb. Game-Bds., 2, p. 245, 1897 (part); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 280, 1902—part, southern Texas and northeastern Mexico.

Ortalis vetula maccalli Bendire, Life Hist. N. Amer. Bds., p. 119, 1892—lower Rio Grande, Texas (habits).

Ortalis vetula mcalli Phillips, Auk, 28, p. 74, 1911—Rio Cruz, Rio Martinez, and Santa Leonor, Tamaulipas; Griscom and Crosby, Auk, 42, p. 533—Brownsville, Texas; Friedmann, l.c., 42, p. 543, 1925—Brownsville, Texas (habits).

Ortalis vetula vetula Miller and Griscom, Auk, 38, p. 46, 1921—southern Texas to extreme northern Vera Cruz (crit.); Peters, Bds. World, 2, p. 19, 1934 (range).

¹ Based on a single mounted specimen with an extraordinarily long tail (340 mm.). The author had no material for comparison.

Range.—Lower Rio Grande Valley, Texas, and south through Nuevo León and Tamaulipas to eastern San Luis Potosí (Valles) and extreme northern Vera Cruz, northeastern Mexico.¹

Field Museum Collection.—8: Texas (Hidalgo, 1; unspecified, 1); Mexico (Presas, Tamaulipas, 1; Valles, San Luis Potosí, 5).

Conover Collection.—6: Texas (Brownsville, 4); Mexico (Rio Verde, San Luis Potosí, 1; El Bonito, San Luis Potosí, 1).

****Ortalis vetula vetula* (Wagler). LESSER GRAY-HEADED CHACHALACA.**

Penelope vetula Wagler, Isis, 1830, col. 1112—Mexico (type in Munich Museum examined); van Rossem, Trans. San Diego Soc. N. H., 7, p. 349, 1934 (crit.).²

Ortallida poliocephala (not *Penelope poliocephala* Wagler) Sclater, Proc. Zool. Soc. Lond., 24, p. 310, 1856—Córdoba, Vera Cruz, Mexico.

Ortallida vetula Sclater, Proc. Zool. Soc. Lond., 27, pp. 369, 391, 1859—vicinity of Jalapa and Playa Vicente, Vera Cruz; Sclater and Salvin, l.c., 1870, p. 538—part, Vera Cruz, Mexico; Sumichrast, La Naturaleza, 2, p. 37, 1871—Vera Cruz, Mexico; Lawrence, Bull. U. S. Nat. Mus., 4, p. 45, 1876—Guichicovi, Oaxaca.

Ortalis vetula maccalli (not *Ortallida McCalli* Baird) Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 176, 1886—San José Acateno, Puebla; Chapman, Bull. Amer. Mus. N. H., 10, p. 36, 1898—Jalapa, Vera Cruz.

Ortalis vetula Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 512, 1893—part, spec. o-d', Mexico (Vera Cruz, Misantla, Jalapa, Plan del Río, Vega del Casadero, La Antigua; Atlíxcos, Puebla; Teapa, Tabasco); idem, Handb. Game-Bds., 2, p. 245, 1897 (part); Salvin and Godman, Biol.

¹ The subspecific identity of the birds recorded by Dugès (La Naturaleza, 1, p. 141, 1869) from Guadalajara s. n. *Ortallida maccalli* remains to be determined.

² In a letter to the late Mr. W. deWitt Miller (cf. Auk, 38, p. 455, 1921), one of us pointed out that the designation of Tampico, Tamaulipas, as type locality of *P. vetula* was inadmissible, since the collector of the type specimen, a man by the name of Keerl, did not visit that region at all, but merely worked from Vera Cruz up to Mexico City. Since that time, Mr. van Rossem has independently studied Wagler's type (which, by the way, was always in the Munich Museum, the expression "Mus. Monac." used by Wagler being merely the latinized form of that institution's name), and correctly stated that it precisely resembles *jalapensis* save for its pure white instead of buffy tail-tips. However, on examining a series from central Vera Cruz, we find considerable variation in that respect, and one specimen from Papantla has the tips to the lateral rectrices very nearly as white as Wagler's type, while they are more or less tinged with buffy in others from the same locality. From the available material it appears that a gradual decrease in the intensity of the tail-tips takes place, as one advances north through Vera Cruz, and that some individuals are just as white-tipped as the Texan Chachalaca. There is no room, however, for recognizing another intermediate race, and as Wagler's type almost certainly came from within the range of *jalapensis*, we have no hesitation in accepting *vetula* as an earlier name, while the Texas form, which is readily separable by its paler body coloration and grayish brown or ashy belly, becomes *O. v. maccalli*, as pointed out by van Rossem.

Centr.-Amer., Aves, 3, p. 280, 1902—part, Mexico (localities in Vera Cruz and Tabasco).

Ortalis vetula jalapensis Miller and Griscom, Auk, 38, p. 46, Jan., 1921—Jalapa, Vera Cruz, Mexico (type in the American Museum of Natural History, New York); Peters, Bds. World, 2, p. 19, 1934—part, Vera Cruz to Tabasco and western Chiapas.

Ortalis vetula fulvicauda Miller and Griscom,¹ Auk, 38, p. 47, Jan., 1921—Tolosa, [northern] Oaxaca, Mexico (type in the American Museum of Natural History, New York).

Range.—Southeastern Mexico, from Vera Cruz, Puebla, and northern Oaxaca south on the Caribbean slope to Tabasco and western Chiapas.²

Field Museum Collection.—1: Mexico (Achotal, Vera Cruz, 1).

Conover Collection.—5: Mexico (Tutla, Oaxaca, 5).

****Ortalis vetula intermedia* Peters.³ INTERMEDIATE CHACHALACA.**

Ortalis vetula intermedia Peters, Auk, 30, p. 371, July, 1913—Camp Mengel, Hondo River, Quintana Roo, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.); Miller and Griscom, Auk, 38, p. 48, 1921 (crit.); Griscom, Amer. Mus. Nov., 235, p. 7, 1926—Chunyahche, Palmul, and Acomal, Quintana Roo; Peters, Bds. World, 2, p. 19, 1934 (range); Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 11, 1935—Uaxactun and Chuntuqui, Petén, Guatemala (crit.).

Ortalis vetula (not *Penelope vetula* Wagler) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 512, 1893—part, spec. v', Belize, British Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 280, 1902—part, Belize.

Range.—Southern Campeche and the southern part of the Territory of Quintana Roo south on the Atlantic slope of eastern Chiapas and adjacent western Guatemala to the Sierra Madre, northern Guatemala (Peten) and northern British Honduras.

Field Museum Collection.—4: Mexico, Campeche (Matamoros, 4).

Conover Collection.—4: Mexico, Chiapas (Chicomuselo, Moriscal, 2; Malpaso, Siltepec, 2).

¹ *O. v. fulvicauda* has been shown by Griscom to be inseparable.

² In addition to the type of *O. vetula*, Hellmayr has examined seven specimens from Vera Cruz (Papantla, Jalapa, etc.).

³ *Ortalis vetula intermedia* Peters seems to connect *O. v. pallidiventris* with *O. v. plumbiceps*, but is smaller than either. From the Yucatan race it is evidently distinguished by darker upper parts, neck, and breast; deeper isabelline abdomen; darker fulvous flanks and under tail coverts; from *O. v. plumbiceps* by isabelline instead of fulvous brown abdomen and more uniform tail-tips. Wing, 172–184; tail, 215–240; tarsus, 59–62½; bill, 22–26.

According to Van Tyne, birds from northern Petén agree with those from Quintana Roo.

****Ortalis vetula pallidiventris* Ridgway.¹ PALE-BELLIED
CHACHALACA.**

Ortalis vetula pallidiventris Ridgway, Man. N. Amer. Bds., p. 209, 1887—Yucatan (type in U. S. National Museum); Chapman, Bull. Amer. Mus. N. H., 8, p. 288, 1896—Chichen Itzá, Yucatan (habits); Cole, Bull. Mus. Comp. Zool., 50, p. 115, 1906—Chichen Itzá; Miller and Griscom, Auk, 38, p. 48, 1921 (crit.); Peters, Bds. World, 2, p. 19, 1934 (range).

Ortalis maccalli (not of Baird) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 209, 1869—Mérida, Yucatan (crit.).

Ortalis vetula (not *Penelope vetula* Wagler) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 538—part, Mérida, Yucatan.

Ortalis vetula Boucard, Proc. Zool. Soc. Lond., 1883, p. 460—Yucatan; Salvin, Ibis, 1889, p. 378—Meco and Holbox Islands, Yucatan; idem, Ibis, 1890, p. 89—same localities; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 512, 1893—part, spec. e'-t', Yucatan, Holbox, Mugerres, Meco, and Cozumel Islands; idem, Handb. Game-Bds., 2, p. 245, 1897 (part); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 280, 1902—part, Yucatan (Mérida) and Meco, Holbox, Cozumel, and Mugerres Islands.

Range.—Northern parts of Yucatan Peninsula, and Holbox, Mugerres, Meco, and Cozumel Islands, in eastern Mexico.

Field Museum Collection.—12: Yucatan (San Felipe, 1; Rio Lagartos, 1; unspecified, 1; Chichen Itzá, 6); Quintana Roo (El Meco, 3).

Conover Collection.—1: Yucatan (Temax, 1).

****Ortalis vetula plumbiceps* (G. R. Gray).² PLUMBEOUS-HEADED
CHACHALACA.**

Ortalis plumbiceps G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 11, 1867—Honduras [=Omoa] and Guatemala (cotypes in British Museum).

Ortalis vetula (not *Penelope vetula* Wagler) Moore, Proc. Zool. Soc. Lond., 27, p. 62, 1859—near Omoa, Honduras; Sclater and Salvin, Ibis, 1859, p. 224—Atlantic slope of Guatemala; Taylor, Ibis, 1860, p. 311—Atlantic slope of Honduras; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 538—part, Vera Paz, Guatemala, and Honduras.

Ortalis vetula Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 512, 1893—part, spec. u', w'-a'', "British" Honduras [=Omoa] and Guatemala (Coban); idem, Handb. Game-Bds., 2, p. 245, 1897 (part); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 280, 1902—part, Guatemala (Coban) and Honduras (Omoa, San Pedro).

¹ *Ortalis vetula pallidiventris* Ridgway is the palest and grayest race of the group, the light grayish olive back being its most distinctive feature.

² *Ortalis vetula plumbiceps* (G. R. Gray): Except for a tendency toward darker, more rufous and more bicolored tail-tips, there seems to be very little difference between this race and typical *vetula*. If it were not for the fact that a much lighter-bellied race, *O. v. intermedia*, separates the two groups, it would not appear to be worth recognition.

Additional specimens examined.—Guatemala: Coban, 4.—Honduras: Chame-licon, 3.

Ortalis vetula plumbeiceps Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 78, 1907—Los Amates, Guatemala.

Ortalis vetula plumbeiceps Miller and Griscom, Auk, 38, p. 47, 1921—Guatemala to central Nicaragua (crit.); Peters, Bull. Mus. Comp. Zool., 69, p. 403, 1929—Progreso and Lancetilla, Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 301, 1932—Honduras (Ormoa, Chiloma, Lancetilla, Progreso); Griscom, Bull. Amer. Mus. N. H., 64, p. 101, 1932—near Puerto Barrios, Guatemala; Peters, Bds. World, 2, p. 19, 1934 (range); Carriker and Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 413, 1935—Gualan (Motagua Valley) and Quirigua (near Puerto Barrios), Guatemala; Deignan, Auk, 53, p. 188, 1936—La Ceiba, Honduras.

Ortalis vetula jalapensis Austin, Bull. Mus. Comp. Zool., 69, p. 370, 1928—Mountain Cow Water Hole, Cayo District, British Honduras (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 101, 1932—Sepacuite, Secanquim, Finca Chamá, and east of Coban, Caribbean Guatemala (crit.); Peters, Bds. World, 2, p. 19, 1934—part, Caribbean slope of Guatemala and adjacent British Honduras.

Ortalis vetula vetula Griscom, Ibis, 1935, p. 810—north slope of Sierra de los Minas, Guatemala.

Range.—From central British Honduras and southern Peten south on the Atlantic slope of Guatemala through Honduras to central Nicaragua.

Field Museum Collection.—8: British Honduras (Middlesex, Stann Creek, 1; 22 Mile Station, Stann Creek, 1); Guatemala (Los Amates, 3; Bobos, Izabal, 2); Honduras (Chamelicon River, 1).

Conover Collection.—7: Guatemala (Secanquim, Alta Verapaz, 1); Honduras (La Ceiba, Atlántida, 1; El Jaral, Lake Yojoa, 1; Monte Redondo, Tegucigalpa, 2; La Flor, Tegucigalpa, 1; Cantoral, Tegucigalpa, 1).

****Ortalis vetula deschauenseei* Bond.¹ UTILLA ISLAND**

CHACHALACA.

Ortalis vetula deschauenseei Bond, Proc. Acad. Nat. Sci. Phila., 88, p. 356, 1936—Utilla Island, off Honduras (type in the Academy of Natural Sciences of Philadelphia).

Range.—Utilla Island, off the coast of northern Honduras.

Field Museum Collection.—2: Honduras (Utilla Island, 2).

****Ortalis vetula leucogastra* (Gould). WHITE-VENTED**

CHACHALACA.

Penelope albiventer (not *Penelope albiventris* Wagler) Lesson, Rev. Zool., 5, p. 174, 1842—Realejo, Nicaragua (type in collection of R. P. Lesson,

¹*Ortalis vetula deschauenseei* Bond: Differs from *O. v. plumbeiceps* in being larger and paler, less brown, both above and below, the under parts much less richly colored, with feathers of foreneck and chest grayer; gray of pileum and hind neck not distinctly defined. Wing (male), 208; tail, 225; tarsus, 58; bill, 25½.

present location unknown); Gould, Voy. Sulphur, Zool., p. 48, pl. 31, 1844.

Penelope leucogastra Gould, Proc. Zool. Soc. Lond., 11, p. 105, Dec., 1843—locality unknown (type lost, formerly in collection of Zoological Society of London).

Ortalia leucogastra Sclater and Salvin, Ibis, 1859, p. 224—Pacific coast of Guatemala (nest and eggs descr.); idem, Proc. Zool. Soc. Lond., 1870, p. 539—Realejo, Nicaragua, and Costa Grande, Guatemala (crit.); Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—Naránjo, Guatemala.

Ortalis leucogastra Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 514, 1893—Guatemala (Retalhuleu, Costa Grande), El Salvador (La Libertad), and Nicaragua (Momotombo); idem, Handb. Game-Bds., 2, p. 247, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 281, 1902—Pacific coast of Guatemala to Nicaragua; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 78, 1907—San José, Guatemala; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 140, 1938—Lake Olomega, Puerto del Triunfo, San Sebastián, Rio San Miguel, Lake Chanmico, Lake Guija, Hacienda Zapotitán, and Barra de Santiago, El Salvador.

Ortalis vetula leucogastra Griscom, Bull. Amer. Mus. N. H., 64, p. 103, 1932—Hacienda California, Finca Cipres, and Espina, Guatemala; Peters, Bds. World, 2, p. 19, 1934 (range).

Range.—Tropical zone of the Pacific slope of southeastern Chiapas (Escuintla), Guatemala, El Salvador, and northern Nicaragua (Realejo, Momotombo).

Field Museum Collection.—15: Guatemala (Concepción del Mar, Escuintla, 10; Tiquisate, Escuintla, 1; Volcan Tajumulco, San Marcos, 2; San José, Escuintla, 1) and Nicaragua (San Gerónimo, 1).

Conover Collection.—8: Mexico, Chiapas, Escuintla (Acacoyagua, 5; La Grada, 1) and Guatemala (Tiquisate, Escuintla, 2).

***Ortalis ruficrissa*¹ *ruficrissa* (Sclater and Salvin). RUFOUS-VENTED CHACHALACA.**

Ortalia ruficrissa Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 538 (footnote)—Valle "Dupar" [=de Upar], south side of Sierra Nevada de Santa Marta, Colombia (type in Salvin-Godman Collection, now in the British Museum, examined).

¹ *Ortalis ruficrissa*, of which only two specimens are in existence, is certainly closely related to *O. vetula*, but as has been pointed out by Miller and Griscom, differs by bright rufous-chestnut crissum; the greater extent of the pure white tail-tips; black instead of gray forehead and malar region; light rufous flanks; browner rump and upper tail coverts; proportionately shorter and less graduated tail. The occurrence of a form belonging to the *O. vetula* complex in the Santa Marta region, where it clearly replaces *O. g. garrula* east and south of the Sierra Nevada, raises the question whether the relationship between the two groups may not be closer than was hitherto suspected. The problem will require careful investigation with the help of extensive series from certain parts of Nicaragua, where the range of *O. garrula frantzii* may possibly clash with that of *O. vetula plumbeiceps*.

Ortalis vetula (not *Penelope vetula* Wagler) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 512, 1893—part, spec. b^r, Valle de Upar; idem, Handb. Game-Bds., 2, p. 245, 1897—part, Colombia.

Ortalis ruficrissa Miller and Griscom, Auk, 38, p. 49, 1921—Dibulla, Santa Marta region (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 172, 1922—Dibulla (range).

Ortalis ruficrissa ruficrissa Peters, Bds. World, 2, p. 20, 1934 (range).

Range.—Tropical zone of the Santa Marta region, on the eastern and southern side of the mountains, in northern Colombia.¹

****Ortalis ruficrissa baliolus* Osgood and Conover.² ZULIA
CHACHALACA.**

Ortalis ruficrissa baliolus Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 31, Aug. 28, 1922—Orope, Zulia, Venezuela (type in Field Museum of Natural History); Peters, Bds. World, 2, p. 20, 1934 (range).

Range.—Tropical zone of Venezuela in State of Zulia south of Lake Maracaibo (Orope, Rio Cogollo, Rio Guachi, Lagunillas).

Field Museum Collection.—2: Venezuela (Orope, 2).

Conover Collection.—1: Venezuela (Rio Cogollo, Périja, 1).

****Ortalis garrula frantzii* (Cabanis).³ FRANTZIUS'S CHACHALACA.**

Ortalida frantzii Cabanis, Journ. Orn., 17, p. 211, 1869—Costa Rica (type in Berlin Museum).

Ortalida poliocephala (not *Penelope poliocephala* Wagler) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 139, 1868—Costa Rica (San José, Turrialba, La Palma); Salvin, Ibis, 1869, p. 318—Costa Rica (crit.).

¹ *Material examined*.—Colombia: Valle de Upar, 1 (the type); Dibulla, 1.

² *Ortalis ruficrissa baliolus* Osgood and Conover: Very similar to the nominate race, but general coloration darker and more rufescent, especially on the posterior lower parts; the gray of the head deeper in tone; the lower breast, abdomen, flanks, and thighs darker olive, heavily washed with rufous; crissum and under tail coverts decidedly darker rufous chestnut. Wing (male), 220; tail, 263; tarsus, 71½; bill, 27.

While two of the specimens, both from Orope, differ by the above characters from the only available skin from Dibulla, the third individual is somewhat intermediate and suggests the desirability of comparing additional material of both races to establish their distinctness beyond doubt.

³ *Ortalis garrula frantzii* (Cabanis), though very close to *O. g. cinereiceps*, may be separated by darker, deep mouse gray rather than deep neutral gray pileum; darker, more olive brown upper parts; darker brownish breast; more brownish, less whitish abdomen; tail-ends possibly more cinnameous.

Birds from eastern Nicaragua are exactly like others from Costa Rica. While distinguishable in a series, this form is not a strongly marked one. Certain individuals from Panama, notably one from Paraiso Station, Panama Railroad, and one from Veraguas, have the breast very nearly as dark brownish as *frantzii*, and approach it also in the coloration of the dorsal parts. They differ by lighter gray head and paler abdomen.

Additional material examined.—Nicaragua: Rio Escondido, 2; Rio Rama, 1.—Costa Rica: San José, 2; Jiménez, 1; unspecified, 3.

Ortalida cinereiceps (not of Gray) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 540—part, Costa Rica; Nutting, Proc. U. S. Nat. Mus., 6, p. 408, 1884—Los Sábalos, Nicaragua.

Ortalis cinereiceps Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 597, 1887—Jiménez and Cartago, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 523, 1893—Rio Escondido, Nicaragua; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 515, 1893—part, spec. a-c, San José, Costa Rica; idem, Handb. Game-Bds., 2, p. 249, 1897—part, Costa Rica; Underwood, Ibis, 1896, p. 448—Miravalles, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 282, 1902—part, Nicaragua (Los Sábalos, Rio Escondido) and Costa Rica (Turrialba, San José, La Palma, Jiménez, Cartago, Irazú, Miravalles); Carriker, Ann. Carnegie Mus., 6, p. 383, 1910—Costa Rica (part, Guayábo, Miravalles, Cariblanco de Sarapiquí, Juan Viñas); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 260, 1910—Guayábo, Costa Rica.

Ortalis cinereiceps saturatus Miller and Griscom, Amer. Mus. Nov., 25, p. 1, Dec. 9, 1921—near Matagalpa, Nicaragua (type in the American Museum of Natural History, New York).

Ortalis cinereiceps frantzii Peters, Bull. Mus. Comp. Zool., 71, p. 297 (in text), 1931 (crit.); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 206, 1932—Santa Rosita and Eden, Nicaragua.

Ortalis garrula frantzii Peters, Bds. World, 2, p. 20, 1934 (range).

Range.—Tropical zone of Nicaragua and Costa Rica (excepting the southwestern section).

Field Museum Collection.—5: Costa Rica (Guayábo, 4; Limón, 1).

Conover Collection.—8: Costa Rica (Guápiles, 2; Atalanta, Estrella Valley, 1; Guácimo, Llanurus, 2; Jiménez, 3).

****Ortalis garrula cinereiceps* (G. R. Gray). GRAY-HEADED CHACHALACA.**

Ortalida cinereiceps G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 12, 1867—"northwest coast of [South] America" (the type, collected by Kellett and Wood, and examined by C. E. Hellmayr in the British Museum came either from the Pearl Islands or from Panama);¹ Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Castillo, Veraguas; Sclater and Salvin, l.c., 1870, p. 540—part, Veraguas and Panama.

Ortalida poliocephala (not *Penelope poliocephala* Wagler) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1861—Lion Hill, Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 371—Panama Railroad; Salvin, l.c., 1867, p. 161—Santiago and Cordillera de Tolé, Veraguas.

Ortalis cinereiceps Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 146, 1893—Buenos Aires, Térraba Valley, Costa Rica; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 515, 1893—part, spec. d-l, Veraguas (Cordillera de Tolé, Castillo) and Panama (Paraiso Station); idem, Handb.

¹ San Miguel Island, Pearl Archipelago, suggested as type locality by Aldrich (Sci. Pub. Cleveland Mus. Nat. Hist., 7, p. 55, 1937).

Game-Bds., 2, p. 249, 1897—part, Veragua and Panama; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 10, 1899—Laguna della Pita, Darien; Bangs, Proc. New Engl. Zool. Cl., 2, p. 14, 1900—Loma del León, Panama; idem, Auk, 18, pp. 25, 356, 1901—San Miguel and Pedro Gonzales Islands, Pearl Islands, and Divalá, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 282, 1902—part, Panama (Divalá, Paraiso Station) and Veraguas (Santiago, Cordillera de Tolé); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 145, 1905—San Miguel and Pedro Gonzales Islands, Pearl Archipelago (crit.); idem, l.c., 46, p. 214, 1906—Savanna of Panama; Bangs, Auk, 24, p. 291, 1907—Boruca, Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 383, 1910—Costa Rica (part, Pozo Azul, Cuábre); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 242, 1918—near Gatún, Panama; Rendahl, Ark. Zool., 13, No. 4, p. 22, 1920—San Miguel Island.

Ortalis struthopus Bangs, Proc. New Engl. Zool. Cl., 2, p. 61, 1901—San Miguel Island, Pearl Islands, Bay of Panama (type in collection of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 154, 1930); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 283, 1902 (ex Bangs).

Ortalis cinereiceps cinereiceps Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 446, 1928—Boquete Trail, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 297, 1931—Guábo and Cricamola, Panama (crit.).

Ortalis garrula cinereiceps Peters, Bds. World, 2, p. 20, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 303, 1935—Panama.

Range.—Tropical zone of southwestern Costa Rica (Térraba Valley)¹ and Panama south and east to Darien, including the Pearl Islands.

Field Museum Collection.—2: Costa Rica (Buenos Aires, 2).

Conover Collection.—7: Panama (Cricamola, Bocas del Toro, 7).

***Ortalis garrula olivacea* Aldrich.² AZUERO CHACHALACA.**

Ortalis garrula olivacea Aldrich, Sci. Pub. Cleveland Mus. Nat. Hist., 7, p. 53, 1937—Paracoté, eastern shore of Montijo Bay, 1 mile south of mouth of

¹ Peters also includes in the range of this form the Talamanca Valley, whence we have no material. There is no authentic record of the present race from any part of Colombia.

² *Ortalis garrula olivacea* Aldrich is said to differ from *O. g. cinereiceps* by being larger, distinctly darker olive brown on back, wings, upper tail coverts, and chest; by having the primaries more deeply rufescent, and the tail darker, greenish black. In comparison to *O. g. frantzii* it is said to be distinctly larger, much paler throughout, and more olive (less reddish) brown. Wing, 212–227, (female) 205; tail, 222–240.

While we have not seen this form, we may mention that there is considerable variation in coloring among specimens from Veraguas and the Panama Railroad. Some of the darker individuals, particularly one from Paraiso Station and another from Veraguas (Cordillera del Tolé), answer pretty well to Aldrich's description except for their smaller size (wing, 185–210; tail, 205–230), and it would seem that *O. g. olivacea* is in need of corroboration by further material. The type of *O. cinereiceps*, it may be stated, agrees well with the average from Panama, notably an adult from Lion Hill.

Angulo River, Veraguas, Panama (type in Cleveland Museum of Natural History, Cleveland, Ohio).

Range.—Known only from the type locality, but probably ranges throughout the Azuero Peninsula, Veraguas, Panama.

****Ortalis garrula mira* Griscom.¹ GRISCOM'S CHACHALACA.**

Ortalis garrula mira Griscom, Bull. Mus. Comp. Zool., 72, p. 318, 1932—Ranchon, Caribbean slope of extreme eastern Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, l.c., 78, p. 303, 1935—Caribbean slope of eastern Darien; Peters, Bds. World, 2, p. 20, 1934 (range).

Range.—Tropical zone of the Caribbean slope of extreme eastern Darien.

Conover Collection.—6: Panama (Port Obaldia, Darien, 6).

***Ortalis garrula garrula* (Humboldt).² CHESTNUT-WINGED CHACHALACA.**

Phasianus garrulus Humboldt, Obs. Zool. Anat. Comp., 1, livr. 1, p. 4, pl. 1, No. iii, figs. 1-6, 1805—part, descr. and hab. "Rivière de la Madeleine" = Magdalena River, Colombia (type lost); idem, Beob. Zool., 1, p. 7, pl. 1, No. iii, figs. 1-6, 1806—part, descr. and hab. "Neu Granada."³

Penelope garrula Wagler, Isis, 1830, col. 1111—Carthagena, "Mexico" = Colombia (good descr.).

Ortalida garrula Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 539—Colombia (Magdalena River, Cartagena, Santa Marta) (descr.).

¹ *Ortalis garrula mira* Griscom: Very similar to *O. g. cinereiceps*, but dorsal surface and upper breast more olive, less brownish; the abdomen more whitish; the tail-tips slightly paler.

Except by the two last-named characters, which seem to indicate some slight tendency toward the Colombian form, we do not see that *O. g. mira* is any nearer to *O. g. garrula* than is *O. g. cinereiceps*.

² *Ortalis garrula garrula* (Humboldt) differs from all the Central American races by Argus brown instead of gray pileum and hind neck; reddish instead of dusky auriculars; purer white lower breast and abdomen; whitish to buffy (instead of buffy brown) under tail coverts, nearly white tail-ends. A very distinct form.

Material examined.—Colombia: Cartagena, 2; Santa Marta, 2; Bonda, 1; Fundación, 1.

³ Humboldt evidently did not realize that he had met with two distinct species on the north coast of South America; the localities Caracas, Cumaná, and Nueva Barcelona pertaining unquestionably to *O. ruficauda*, the only chachalaca found in those regions. However, certain details in his description ("abdomen, cruribus et crisso niveis" and "rectricibus apice albidiores"), which utterly disagree with the Venezuelan bird, clearly indicate that he had a specimen of the Colombian species before him, although the rusty brown pileum is not mentioned, and the remiges are called "fusci." We may, therefore, regard the Magdalena River as type locality, inasmuch as Humboldt's original specimen has disappeared. The measurements of tail and wing, disfigured in the French text by the omission of several words, are correctly given in the German version.

Ortalis garrula Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 515, 1893—Cartagena and Santa Marta; idem, Handb. Game-Bds., 2, p. 248, 1897—coast region of Colombia (monog.); Allen, Bull. Amer. Mus. N. H., 13, p. 126, 1900—Bonda, Santa Marta; Chapman, l.c., 36, p. 197, 1917—Boca de Chimi and below Banco, lower Magdalena; Todd and Carriker, Ann. Carnegie Mus., 14, p. 171, 1922—Donjaca, Mamatoco, Fundación, and Trojas de Cataca, Colombia (habits, eggs); Darlington, Bull. Mus. Comp. Zool., 71, p. 370, 1931—Rio Frio, Magdalena, Colombia.

Ortalis garrula garrula Peters, Bds. World, 2, p. 20, 1934 (range).

Range.—Northern Colombia, in the lower Magdalena Valley and eastwards to the western base of the Santa Marta Mountains.

****Ortalis erythroptera* (Sclater and Salvin).¹ ECUADORIAN CHACHALACA.**

Ortalida erythroptera (Natterer MS.)² Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 540—Babahoyo and Guayaquil, Ecuador (type, from Babahoyo, in Salvin-Godman Collection, now in British Museum); Taczanowski, l.c., 1877, p. 333—Palmar, distr. Santa Rosa, Ecuador; idem and Berlepsch, l.c., 1885, p. 119—Babahoyo and Guayaquil; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 38, 1900—Rio Peripa, Ecuador.

Ortalida ruficeps (not *Penelope ruficeps* Wagler) Sclater, Proc. Zool. Soc. Lond., 28, p. 289, 1860—Babahoyo, Ecuador.

Ortalis erythroptera Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 516, 1893—Babahoyo and Balzar, Ecuador; idem, Handb. Game-Bds., 2, p. 249, 1897 (monog.); Hartert, Nov. Zool., 5, p. 505, 1898—Chimbo, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 155, 1926—Ecuador (Esmeraldas, Chone, Rio de Oro, Santa Rosa, Alamor) and Peru (Paletillas); Peters, Bds. World, 2, p. 21, 1934 (range).

Range.—Tropical zone of extreme northwestern Peru (Paletillas, Dept. Tumbes) and western Ecuador north to Esmeraldas.³

Conover Collection.—5: Ecuador (Puente de Chimbo, 1; Isla Silva, Province de los Rios, 1; San Mateo, Esmeraldas, 1; Piedras, El Oro, 2).

¹ *Ortalis erythroptera* (Sclater and Salvin) differs from *O. g. garrula* by larger size (wing, 235 against 205–220; tail, 175 against 145–155); much longer russet (instead of buffy white) tail-ends; ochraceous-tawny instead of buffy white to warm buff under tail coverts; russet rather than buffy brown axillaries and under wing coverts; and especially by having not only the upper part of the head, but also the sides of the neck and the lower neck rufous, this color being, besides, much brighter and redder, chestnut rather than Argus brown. The lower breast and abdomen are creamy white in both.

² First published as a nomen nudum by Lichtenstein (Nomencl. Av. Mus. Berol., p. 87, 1854) with the erroneous locality “Cumaná” (cf. Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 540).

³ *Additional material examined*.—Ecuador: Rio Peripa, 3; Chimbo, 1; Babahoyo, 1.

****Ortalis ruficauda* (Jardine). JARDINE'S CHACHALACA.**

Ortalida ruficauda Jardine, Ann. Mag. Nat. Hist., 20, p. 374, 1847—Tobago (type in collection of Sir W. Jardine, present location unknown); idem, Contr. Orn., 1848, p. 16, pl. (anatomy); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 534—Tobago and Venezuela (crit.); Sclater, l.c., 1870, p. 796—Tobago.

Ortalida bronzina G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 11, 1867—Venezuela (type in British Museum examined).

Ortalis ruficauda Berlepsch, Ibis, 1884, p. 440—Rio Apure, Venezuela; Cory, Auk, 10, p. 220, 1893—Tobago; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 507, 1893—Venezuela, Tobago, and Becquia, Grenadines; idem, Handb. Game-Bds., 2, p. 237, 1897 (monog.); Robinson and Richmond, Proc. U. S. Nat. Mus., 18, p. 658, 1896—El Valle, Margarita Island; idem, l.c., 24, p. 165, 1901—La Guaira, Venezuela; Clark, Auk, 19, p. 261, 1902—Margarita Island; idem, Proc. Bost. Soc. N. H., 32, pp. 245, 305, 1905—Becquia and Unión Islands, Grenadines (introduced); Lowe, Ibis, 1909, p. 322—Cariaco Peninsula, Venezuela; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 239, 1909—Margarita Island; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 356, 1916—Rio Apure (ex Berlepsch); Cherrie and Reichenberger, Amer. Mus. Nov., 27, p. 3 (in text), 1921—Cristobal Colón, Paria Peninsula, and Tucacas, Falcon, Venezuela; Delacour, Ibis, 1923, p. 138—San Fernando de Apure, Venezuela; Peters, Bds. World, 2, p. 20, 1934 (range); Pelcher and Smooker, Ibis, 1935, p. 279—Tobago (eggs descr.).

Phasianus garrulus Humboldt, Obs. Zool. Anat. Comp., 1, livr. 1, p. 4, 1805—part, "prov. de Caracas et Nouvelle Andalousie"; idem, Beob. Zool., 1, p. 7, 1886—part, Prov. Caracas, Cumaná, and Neu Barcellona, Venezuela.

Ortalis ruficauda [sic] Cory, Cat. W. Ind. Bds., p. 96, 1892—Unión Island and Grenadines.

Range.—Northern Venezuela,¹ from Falcon (Tucacas) east to the Paria peninsula,² south to San Fernando, Apure; island of Tobago. Introduced on the islands of Becquia and Unión, Lesser Antilles.³

Field Museum Collection.—2: Tobago, 1; Venezuela (Margarita Island, 1).

Conover Collection.—1: Venezuela (El Trompillo, Carabobo, 1).

¹ *Ortalida rufoterminalata* "Cab[anis]," listed as a nomen nudum from Porto Cabello, Venezuela, by Heine and Reichenow (Nomencl. Mus. Hein., p. 301, 1887), may possibly refer to *O. ruficauda*. We have not succeeded in finding whether and where Cabanis has published a description of it.

² There is a sight record by Beebe (Zoologica, N.Y., 1, p. 73, 1909) from Guanoco, Orinoco Delta.

³ The species does not occur on the island of Trinidad. Venezuelan specimens do not appreciably differ from those of Tobago.

Additional material examined.—Venezuela: Cristobal Colón, Paria, 4; Cariaco, Paria, 1; Puerto Cabello, Carabobo, 1; Tucacas, Falcon, 2; Rio Apure, 1.—Tobago: Man o' War Bay, 3; unspecified, 2.

****Ortalis canicollis canicollis* (Wagler). GRAY-HEADED
CHACHALACA.**

- Penelope canicollis* Wagler, Isis, 1830, col. 1112—based on “Yacú-caraguata” Azara, No. 336, Paraguay; Burmeister, Syst. Uebers. Th. Bras., 3, p. 341, 1856—Paraguay (ex Azara); idem, Journ. Orn., 8, p. 259, 1860—Tucumán; idem, Reise La Plata St., 2, p. 499, 1861—foot of the Sierra, Tucumán.
- Ortalida canicollis* Hartlaub, Syst. Ind. Azara, p. 22, 1847—Paraguay (ex Azara); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 534—part, Paraguay, Rio Paraná, and Rio Vermejo; Burmeister, l.c., 1871, p. 701—near Invernada, Tucumán; Stempelmann and Schulz, Bol. Acad. Cienc. Córdoba, 10, p. 403, 1890—Córdoba (breeding).
- Ortalis canicollis* Salvin, Ibis, 1880, p. 363—Salta and Tucumán; Berlepsch, Journ. Orn., 35, p. 125, 1887—Paraguay; Sclater and Hudson, Arg. Orn., 2, p. 147, 1889—Tucumán, Rio Paraná, and Rio Vermejo; Kerr, Ibis, 1892, p. 148—lower Pilcomayo (habits); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 508, 1893—part, Paraguay and Argentina (Tucumán, Salta); idem, Handb. Game-Bds., 2, p. 238, 1897—part, Paraguay and Argentina; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 34, 1897—Caiza, Tarija, Bolivia; Kerr, Ibis, 1901, p. 234—Paraguay (Villa Concepción and near Carayá Vuelta); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 217, 1902—Tapia, Vipos, Tranquitas, and La Ramada, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—same localities; Lönnberg, Ibis, 1903, p. 458—Tatarenda, near Caiza, Tarija, Bolivia; Baer, Ornith., 12, p. 233, 1904—Tapia, Tucumán (habits); Bruch, Rev. Mus. La Plata, 11, p. 248, 1904—Orán, Salta; Hartert and Venturi, Nov. Zool., 16, p. 263, 1909—Mocoví (Chaco Santafecino), Tafi and Tapia (Tucumán), Arenal and Metan (Salta); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 190, 1910—Tucumán, Córdoba, Santiago del Estero, Salta, and Rio Pilcomayo; Grant, Ibis, 1911, p. 461—Paraguay (Monte Alto, Puerto San Juan); Bertoni, Anal. Soc. Cient. Arg., 75, p. 68, 1913—Chaco; idem, Faun. Parag., p. 35, 1914—Paraguay; Wetmore, Bull. U. S. Nat. Mus., 133, p. 116, 1926—Riacho Pilaga, Formosa, and west of Puerto Pinasco, Paraguay (habits, anatomy); Dinelli, El Hornero, 4, p. 274, 1929—Tucumán and Santiago del Estero (eggs descr.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 84, 1930—Formosa (Tacaaglé, La Urbana) and Bolivia (Villa Montes, Tarija).
- Ortalida guttata* (not *Penelope guttata* Spix) White, Proc. Zool. Soc. Lond., 1882, p. 627—Sauce Redondo, Salta.
- Ortalis guttata* Berlepsch, Journ. Orn., 35, p. 133, 1887—Salta (ex White); Bertoni, Anal. Soc. Cient. Arg., 75, p. 68, 1913; idem, Faun. Parag., p. 35, 1914—Salta (ex White).
- Ortalis canicollis grisea* Cherrie and Reichenberger, Amer. Mus. Nov., 27, p. 2, 1921—Suncho Corral, Santiago del Estero (type in the American Museum of Natural History, New York, examined).
- Ortalis canicollis canicollis* Peters, Bds. World, 2, p. 21, 1934 (range); Krieg and Schumacher, Verh. Orn. Ges. Bay., 21, p. 12, 1936—Paraguay (habits).

Range.—Southeastern Bolivia (Tatarenda, Caiza, and Villa Montes, Dept. Tarija), Paraguay, and northern Argentina south to Santa Fé and Córdoba.¹

Field Museum Collection.—1: Argentina (Alto de las Salinas, Tucumán, 1).

Conover Collection.—10: Paraguay (235 km. west on the Riacho Negro, Chaco, 2; Chaco side of Rio Paraguay, 6); Argentina (Rio Hondo, Santiago del Estero, 2).

****Ortalis canicollis pantanalensis* Cherrie and Reichenberger.²**
PANTANAL CHACHALACA.

Ortalis canicollis pantanalensis Cherrie and Reichenberger, Amer. Mus. Nov., 27, p. 2, 1921—near mouth of Rio São Lourenço, Matto Grosso, Brazil (type in the American Museum of Natural History, New York, examined); Naumburg, Bull. Amer. Mus. N. H., 60, p. 63, 1930—Palmiras (Rio Taquary) and Rio São Lourenço, Matto Grosso; Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 374, 1934—Descalvados, Matto Grosso; Peters, Bds. World, 2, p. 21, 1934—Matto Grosso.

Ortalida canicollis (not *Penelope canicollis* Wagler) Pelzeln, Orn. Bras., 3, p. 286, 1870—Villa Maria and Caçara, Matto Grosso; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 534—part, Villa Maria.

Ortalis canicollis Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 508, 1893—part, Villa Maria; idem, Handb. Game-Bds., 2, p. 238, 1897—part, Villa Maria, Brazil; Ihering, Cat. Faun. Braz., 1, p. 15, 1907—Matto Grosso.

Range.—Southwestern Matto Grosso, from the upper Paraguay to the Rio Taquary.

Field Museum Collection.—4: Brazil (Descalvados, Matto Grosso, 4).

¹ Birds from western Argentina agree with those from Paraguay in tail-markings and general coloration. The type of *O. c. grisea* is an individual mutant with more grayish head and sides of face, less brownish back and wings, bluish green median rectrices, olive grayish breast and abdomen, and hardly any rufescent tinge on the flanks. The bird gives an abnormal impression, and other specimens from northwestern Argentina differ no wise from Paraguayan topotypes.

Additional material examined.—Paraguay: Fort Wheeler, 2; Concepción, 2.—Argentina: Colonia Grande Vedia, Rio de Oro, Chaco Austral, 2; Suncho Corral, Santiago del Estero, 1; Metan, Salta, 1; Tafi, Tucumán, 3.—Bolivia: Villa Montes, Tarija, 2.

² *Ortalis canicollis pantanalensis* Cherrie and Reichenberger: In every respect similar to the nominate race, but three to four lateral pairs of rectrices tipped with rufous.

While the series at hand seems to indicate the constancy of this character, the examination of more adequate material is desirable. In typical *canicollis* only the two outermost pairs of rectrices are tipped with rufous. However, one specimen from Concepción, Paraguay, shows also a small spot on the third rectrix at the tip of the outer web, thus verging to *pantanalensis*.

Additional material examined.—Brazil, Matto Grosso: Villa Maria, 3; Caçara, 1; São Lourenço River, 1 (the type); Palmiras, Rio Taquary, 1.

Genus **PENELOPINA** Reichenbach¹

Penelopina Reichenbach, Vollst. Naturg. Tauben, p. 152, 1862—type, by monotypy, *Penelope niger* Fraser.

***Penelopina nigra nigra** (Fraser). GUATEMALAN BLACK CHACHALACA.

Penelope niger Fraser, Proc. Zool. Soc. Lond., 10, "1850," p. 246, pl. 29 (male, female), pub. Jan. 24, 1852—locality unknown² (cotypes in the coll. of Lord Derby, now in the Liverpool Museum); Salvin, Ibis, 1860, p. 194—Coban, Guatemala.

Penelope nigra Sclater and Salvin, Ibis, 1859, p. 224—Guatemala; Salvin, Proc. Zool. Soc. Lond., 1867, p. 160 (in text)—Volcan de Agua, Guatemala (sound).

Penelopina nigra Reichenbach, Vollst. Naturg. Tauben, p. 152, 1862 (descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 528—Vera Paz, Volcan de Fuego, and Volcan de Agua, Guatemala (descr.); Salvin, Cat. Strickl. Coll., p. 560, 1882—Guatemala; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 503, 1893—Guatemala (Vera Paz, Coban; El Rincon, San Marcos; Volcan de Agua; Volcan de Fuego); idem, Handb. Game-Bds., 2, p. 233, 1897—Guatemala (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 277, 1902—part, Chiapas (Santa Rita) and Guatemala (Coban; Volcan de Agua, Volcan de Fuego, San Marcos); Griscom, Bull. Amer. Mus. N. H., 64, p. 100, 1932—Chimoxan, Guatemala (local distr.); Peters, Bds. World, 2, p. 21, 1934—part, Chiapas and Guatemala; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 361, 1939—Santa Rosa, Chiapas.

Penelopina nigra nigra van Rossem, Trans. San Diego Soc. N. H., 7, p. 364, 1934—Chiapas, Guatemala, and southwestern El Salvador (crit.); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 143, 1938—Cerro del Aguila, El Salvador.

Range.—Humid Upper Tropical zone of the mountains of extreme southern Mexico (Santa Rita, Escuintla, and Santa Rosa, Chiapas), Guatemala, and extreme southwestern El Salvador (Volcan de Santa Ana).³

Field Museum Collection.—4: Guatemala (Volcan Tajumulco, San Marcos, 3;⁴ Alta Verapaz, Coban, 1).

Conover Collection.—4: Mexico, Chiapas, Escuintla (Mt. Madre Vieja, 1; Rio Chicol, 1; Mt. Ovando, 1); Guatemala (unspecified, 1).

¹ As we did not have adequate material for study, we have taken the account of the Black Chachalaca from van Rossem's recent review.

² Van Rossem (Trans. San Diego Soc. N. H., 7, p. 364, 1934) suggests Guatemala.

³ Four additional specimens from Guatemala (presumably Coban region) examined.

⁴ Of the San Marcos males, one is blue, the other very green, while the female is much browner underneath than those from Honduras.

***Penelopina nigra dickeyi** van Rossem.¹ EL SALVADOR BLACK CHACHALACA.

Penelopina nigra dickeyi van Rossem, Trans. San Diego Soc. N. H., 7, p. 364, 1934—Los Esesmites, Chalatenango, El Salvador (type in the California Institute of Technology, Pasadena); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 144, 1938—Los Esesmites, El Salvador.

Range.—Humid Upper Tropical zone in the interior Cordillera of El Salvador and in the mountains of Honduras.

Conover Collection.—8: Honduras (Tegucigalpa, Cantoral, 8).

***Penelopina nigra rufescens** van Rossem.² NICARAGUAN BLACK CHACHALACA.

Penelopina nigra rufescens van Rossem, Trans. San Diego Soc. N. H., 7, p. 365, 1934—Ocotál, Nicaragua (type in the American Museum of Natural History, New York).

Penelopina nigra (not *Penelope niger* Fraser) Salvin and Godman, Ibis, 1892, p. 328—Matagalpa, Nicaragua; idem, Biol. Centr.-Amer., Aves, 3, p. 277, 1902—part, Matagalpa, Nicaragua; Peters, Bds. World, 2, p. 21, 1934—part, Nicaragua.

Range.—Humid Upper Tropical zone of the mountains of Nicaragua (Ocotál, Matagalpa, San Rafael del Norte).

Field Museum Collection.—3: Nicaragua (San Rafael del Norte, 3).

Genus **CHAMAEPETES** Wagler

Chamaepetes Wagler, Isis, 1832, Heft 11, col. 1227—type, by monotypy, *Ortallida goudotii* Lesson.

***Chamaepetes unicolor** Salvin. BLACK SICKLE-WINGED GUAN.

Chamaepetes unicolor Salvin, Proc. Zool. Soc. Lond., 1867, pp. 159, 160—"Veragua" [=Calovévora], Panama (cotypes in Salvin-Godman Collection, now in British Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 139,

¹ *Penelopina nigra dickeyi* van Rossem: "Similar to the nominate race, but adult males with semi-nude area about eye dull brownish red in life, the lower eyelid paler and more orange; plumage distinctly glossed with bluish on upper parts, greenish only on outer webs of flight-quills; female with area about eye dusky and lower eyelid dull pink." (Van Rossem, l.c.) Years ago, one of us examined a couple of adults collected by Wittkugel at La Pita and La Sapote, western Honduras, but no other material was available for comparison.

² *Penelopina nigra rufescens* van Rossem: "Adult males bluish, rather than greenish, in tone and thus not distinguishable from *P. n. dickeyi* as dried skins; females lighter and more reddish (less sandy) brown than either *nigra* or *dickeyi*, particularly on the upper parts, wings, and tail; with light bars everywhere wider and dark bars correspondingly narrower. Color of soft parts unknown." (Van Rossem, l.c.)

Of the three Nicaraguan males, one is very blue, the two others are distinctly greenish and a good match for the bluer bird from San Marcos, Guatemala. There seems thus to be much variation in the coloration of the males irrespective

1868—La Palma and Rancho Redondo, Costa Rica; Frantzius, Journ. Orn., 17, p. 372, 1869—same localities; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 531—Veragua and Costa Rica (descr.); Boucard, l.c., 1878, p. 42—Volcan de Irazú, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Rancho Redondo; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 522, 1893—Costa Rica ("San José," Irazú) and Veragua (Calovéora, Cordillera de Tolé); idem, Handb. Game-Bds., 2, p. 257, 1897 (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 22, 1902—Boquete, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 278, pl. 71, 1902—Costa Rica and Veragua; Carriker, Ann. Carnegie Mus., 6, p. 384, 1910—Costa Rica (Cariblanco de Sarapiquí, Volcan de Turrialba, Ujurrás de Térraba); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 260, 1910—Volcan de Turrialba; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 446, 1928—Boquete Trail, Panama; Peters, Bds. World, 2, p. 22, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 303, 1935—Costa Rica and western Panama.

Range.—Subtropical zone of Costa Rica and western Panama (Veraguas).

Field Museum Collection.—4: Costa Rica (Volcan de Turrialba, 3); Panama (Chiriquí, Boquete, 1).

Conover Collection.—5: Costa Rica (Volcan de Turrialba, 3; Guanacaste, Cerro Santa María, 1); Panama (Chiriquí, Boquete, 1).

****Chamaepetes goudotii sanctae-marthae* Chapman.¹ SANTA MARTA SICKLE-WINGED GUAN.**

Chamaepetes sanctae-marthae Chapman, Bull. Amer. Mus. N. H., 31, p. 141, 1912—El Libano, Sierra Nevada of Santa Marta, Colombia (type in the American Museum of Natural History, New York); Todd and Carriker, Ann. Carnegie Mus., 14, p. 170, 1922—El Libano, Las Taguas, Sierra Nevada de Santa Marta, Las Vegas, Cincinnati, San Lorenzo, Cerro de Caracas, Páramo de Mamarongo, San Miguel, and Heights of Chirua, Colombia (descr. of young).

Chamaepetes goudoti (not *Ortalida goudotii* Lesson) Allen, Bull. Amer. Mus. N. H., 13, p. 126, 1900—El Libano and Valparaiso.

Chamaepetes goudotii sanctae-marthae Peters, Bds. World, 2, p. 21, 1934 (range).

Range.—Subtropical zone of the Santa Marta Mountains, northern Colombia.

Conover Collection.—4: Colombia, Santa Marta (Vista Nieve, 4).

of locality. We must confess that the distinctness of the three races, in our minds, is not quite established, inasmuch as the significance of the supposed divergency in the color of the denuded circumocular region needs elucidation.

¹ *Chamaepetes goudotii sanctae-marthae* Chapman: Nearest to the nominate race, but upper parts more brownish, and throat—excepting a dusky chin-spot—rufous, though somewhat duller and darker (near mars brown) than the rufous-chestnut remainder of the under surface.

Four additional specimens examined.

***Chamaepetes goudotii goudotii (Lesson). GOUDOT'S SICKLE-WINGED GUAN.**

Ortallida goudotii Lesson, Man. d'Orn., 2, p. 217, 1828—"dans les montagnes du Quindíú"=Quindio region, Colombia (location of type not stated);¹ idem, *Traité d'Orn.*, p. 481, 1831— from the Quindíú Mountains to Santa Fé de Bogotá.

Chamaepetes goudoti Sclater, Proc. Zool. Soc. Lond., 24, p. 30, 1856—Bogotá; Sclater and Salvin, l.c., 1870, p. 531—part, mountains of Quindíú, Colombia; Salvin, Ibis, 1874, p. 318—part, Colombia (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 544—Retiro, Colombia (eggs descr.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 521, 1893—part, spec. a-h, Colombia (Bogotá, Antioquia, Retiro); idem, Handb. Game-Bds., 2, p. 256, 1897—part, Colombia; Piquet, Mém. Soc. Neu. Sci. Nat., 5, p. 805, 1914—Angelópolis, near Medellín.

Chamaepetes goudotii goudotii Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1207—Tatamá Mountains, western Andes, Colombia; Chubb, Ibis, (11), 1, p. 21, 1919—Bogotá (crit.); Peters, Bds. World, 2, p. 22, 1934 (range).

Chamaepetes goudotii antioquiiana Chubb, Ibis, (11), 1, p. 22, 1919—"Valdivia," Antioquia, Colombia (type in British Museum).

Chamaepetes goudoti goudoti Chapman, Bull. Amer. Mus. N. H., 36, p. 197, 1916—Colombia (Salencio, San Antonio, Almaguer, Laguneta, La Palma, Andalucia, Choachi; crit.); idem, l.c., 55, p. 158 (in key), 1916 (crit.).

Range.—Subtropical zone of all three ranges of the Andes of Colombia.²

Field Museum Collection.—2: Colombia (Huila, La Palma, 1; Los Jambos, 1).

Conover Collection.—10: Colombia (El Tambo, Munchique, 5; El Tambo, Savaneta, 1; La Plata, Huila, 4).

***Chamaepetes goudotii fagani Chubb.³ FAGAN'S SICKLE-WINGED GUAN.**

¹ Ménégaux (Rev. Franç. d'Orn., 1, p. 319, 1910) claims the type to be in the Paris Museum, but gives "Santa Fé de Bogotá" as its locality, which is in opposition to the original description. It seems, therefore, questionable whether the Parisian specimen is the actual type. It is well to remember that Lesson did not see the bird himself, but merely published the description communicated by Goudot, the discoverer of the species.

² The type locality of *O. goudotii* is the Quindio region in the central Andes, *C. g. antioquiiana* being thus a synonym. We are unable to discover any constant difference between birds from the three ranges.

Additional material examined.—Colombia: Bogotá, 6; Antioquia, 3; Tatamá Mountain, Rio San Juan, 1.

³ *Chamaepetes goudotii fagani* Chubb: Similar to the nominate race, but smaller, with disproportionately shorter tail; upper parts darker as well as greener; throat and chest as a rule dusker. Wing, 210–235; tail, 200–220.

Chubb figures the type as having the bare space round the eye bright red, but other specimens from western Ecuador have this part bluish.

Additional material examined.—Western Ecuador: Nanegal, Guala, Cayandeled, 6.

Chamaepetes fagani Chubb, Bull. Brit. Orn. Cl., 38, p. 4, Oct., 1917—Mindo, western Ecuador (type in British Museum); idem, Ibis, (11), 1, p. 24, pl. 1, 1919—Mindo.

Ortalia rufiventris (not *Penelope rufiventris* Tschudi) Sclater, Proc. Zool. Soc. Lond., 27, p. 147, 1859—Pallatanga, Ecuador.

Chamaepetes goudoti (not *Ortalia goudotii* Lesson) Salvin, Ibis, 1874, p. 318—part, Pallatanga; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 531—part, Ecuador (Pallatanga); Berlepsch and Taczanowski, l.c., 1884, p. 312—Cayandeled; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 521, 1893—part, spec. i-l, "vicinity of Quito" and Pallatanga, Ecuador; idem, Handb. Game-Bds., 2, p. 256, 1897—part, western Ecuador; Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B4, 1911—Gualea, Ecuador.

Chamaepetes goudoti goudoti Lönnberg and Rendahl, Ark. Zool., 14, No. 22, p. 15, 1922—road to Gualea and Piganta (Mojanda), Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 621, 1932—El Portete de Tarquí, near Jiron, Ecuador.

Chamaepetes goudoti fagani Chapman, Bull. Amer. Mus. N. H., 55, p. 157, 1926—near Chunchi, Chiguancay, Mojanda Mountains, Gualea, El Chiral, Zaruma, and Salvias, western Ecuador (crit.); Peters, Bds. World, 2, p. 22, 1934 (range).

Range.—Subtropical zone of western Ecuador, from the Andes west of Quito south to El Tambo, Loja.

Conover Collection.—8: Ecuador (Tandipi, 1; Piganta, 1; Pichincha, Nanegal Chico, 1; Montes de St. Lucia, 1; Saloya, 1; Imbabura, Montes de Paramba, 1; El Tambo, Loja, 2).

****Chamaepetes goudotii tschudii* Taczanowski.¹ TSCHUDI'S SICKLE-WINGED GUAN.**

Chamaepetes tschudii Taczanowski, Orn. Pér., 3, p. 275, 1886—Moyobamba and Tamiapampa, Peru (type, from Tamiapampa, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 100, 1921); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 112—Runacocha, eastern Ecuador.

Penelope rufiventris (not of Tschudi) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 48—Tamiapampa, Peru.

Chamaepetes goudotii tschudii Chubb, Ibis, 1919, p. 23—Baeza, eastern Ecuador (crit.); Peters, Bds. World, 2, p. 22, 1934 (range).

Chamaepetes goudotii tschudii Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Baeza, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55,

¹*Chamaepetes goudotii tschudii* Taczanowski differs from the two preceding races by having the brighter rufous color below extended up to the foreneck and more sharply defined against the brownish throat. Size about the same as *C. g. goudotii*.

Additional specimens examined.—Peru: Tamiapampa, 1.—Ecuador: Baeza, 2; Ambato, 2; La Victoria, Rio Pastaza, 1.

p. 157, 1926—Baeza, below Oyacachi, Sumaco, and Zamora, eastern Ecuador (crit.).

(?) *Chamaepetes goudoti* (not *Ortalida goudotii* Lesson) Ménégau, Rev. Franç. d'Orn., 1, p. 319, 1910—Nuevo Loreto, east of Tayabamba, Peru.

Range.—Subtropical zone of eastern Ecuador and northeastern Peru (Moyobamba, Tamiapampa; ?Nuevo Loreto).

Conover Collection.—2: Ecuador (Guamayacu, 1; Baeza, 1).

****Chamaepetes goudotii rufiventris* (Tschudi).¹ RUFOUS-BELLIED SICKLE-WINGED GUAN.**

Penelope rufiventris Tschudi, Arch. Naturg., 9, (1), p. 386, 1843—"in sylvis Antium elevatis prope Chilpes," Peru (cotypes in Neuchâtel Museum); idem, l.c., 10, (1), p. 309, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 291, pl. 31, 1846—central Peru (up to 7,200 ft.).

Chamaepetes goudoti (not *Ortalida goudotii* Lesson) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 531—part, Peru; Salvin, Ibis, 1874, p. 318—part, Peru; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 558—Auquimarqua and Chilpes, Peru; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 521, 1893—part, spec. p, central Peru; idem, Handb. Game-Bds., 2, p. 256, 1897—part, Peru.

Chamaepetes rufiventris Taczanowski, Orn. Pér., 3, p. 273, 1886—Chilpes, Auquimarqua, and San Bartolomé, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 46—Garita del Sol, Junín.

Chamaepetes goudotii rufiventris Peters, Bds. World, 2, p. 22, 1934—central Peru.

Range.—Subtropical zone of central Peru, in depts. of Huánuco (Cushi Libertad) and Junín (Chilpes, Garita del Sol, Auquimarqua, San Bartolomé).

Field Museum Collection.—1: Peru (Cushi Libertad, 1).

Conover Collection.—2: Peru (Cushi Libertad, 2).

Genus *PIPILE* Bonaparte

Pipile Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 877, 1856—type, by tautonymy, *Crax pipile* Jacquin.

Cumana Coues, Auk, 17, p. 65, 1900—new name for *Pipile* Bonaparte (considered to be possibly invalidated by *Pipilo* Vieillot).

***Pipile pipile* (Jacquin).² TRINIDAD-PIPING GUAN.**

¹ *Chamaepetes goudotii rufiventris* (Tschudi): Nearest to *C. g. tschudii*, but head all round, throat, and chest conspicuously margined with ashy gray; rufous color, while about the same bright tone, not extending beyond the lower breast.

Material examined.—Peru: Cushi Libertad (alt. 6,000 ft.), Dept. Huánuco, 10.

² *Pipile pipile* (Jacquin) is most closely related to *P. cufubi*, but differs by having the white edges to the crest-feathers much narrower; the median upper wing coverts pure white excepting the blackish brown extreme bases and the

Craz (pipile) Jacquin, Beytr. Gesch. Vögel, p. 26, pl. 11, 1784—"am Orinokoflusse bei Kumana," errore (the type, brought alive to Martinique, was kept in the Imperial Menagerie at Vienna).

Pipile jacquini Reichenbach, Vollst. Naturg. Tauben, p. 154, 1862 (new name for *Craz pipile* Jacquin).

Penelope cumanensis (not *Craz cumanensis* Jacquin) Léotaud, Ois. Trinidad, p. 383, 1866—Trinidad (descr.).

Pipile cumanensis Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 529—part, Trinidad (ex Léotaud); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 517, 1893—part, Trinidad; idem, Handb. Game-Bds., 2, p. 251, 1897—part, Trinidad.

Pipile pipile Chapman, Bull. Amer. Mus. N. H., 6, p. 74, 1894—Princetown, Trinidad (crit.); Hellmayr, Bull. Brit. Orn. Cl., 14, p. 59, 1904—Caparo, Trinidad (crit.); idem, Nov. Zool., 13, p. 48, 1906—Caparo (crit.); Salvadori, Riv. Ital. Orn., 3, p. 56, 1914—Trinidad (monog.); Roberts, Trop. Agric., 11, p. 90, 1934—Trinidad; Belcher and Smooker, Ibis, 1935, p. 280—northern range and extreme south of Trinidad.

Craz alector (not of Linnaeus) Taylor, Ibis, 1864, p. 95—Trinidad (from hearsay).

Pipile pipile pipile Peters, Bds. World, 2, p. 22, 1934—Trinidad.

Range.—Island of Trinidad.

**Pipile kujubi* (Pelzeln). AMAZONIAN PIPING GUAN.

Penelope kujubi Pelzeln, Sitzungsber. Math.-Naturw. Kl. Akad. Wiss. Wien, 31, p. 328, 1858—Pará, Brazil (type in Vienna Museum examined); Pelzeln, Orn. Bras., 3, p. 284, 1870—Pará.

Pipile kujubi Reichenbach, Vollst. Naturg. Tauben, p. 153, 1862—Pará (ex Pelzeln); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 530—Pará (monog.); Chapman and Riker, Auk, 8, p. 162, 1891—Diamantina, near Santarém; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 519, 1893—Pará; idem, Handb. Game-Bds., 2, p. 253, 1897—lower Amazonas; Goeldi, Ibis, 1903, pp. 486, 487, 499—Rio Capim, Pará; Hellmayr, Nov. Zool., 12, p. 304, 1905—Igarapé-Assú, Pará; idem, l.c., 13, p. 49, 1906 (char.); idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará, Igarapé-Assú, and Capim, Pará; Sneath, Bol. Mus. Goeldi, 8, p. 58, 1914—Rio Capim, Rio Acará, and "Monte Alegre," Brazil; Salvadori, Riv. Ital. Orn., 3, p. 55, 1914 (monog.).

tips; the outer web of the greater series white nearly to the shaft; the denuded skin on chin and throat entirely cobalt blue, not reddish on the lower portion. Wing, (male) 350, 355, (female) 345; tail, 310, 325, (female) 300; tarsus, 64; bill, 33–34.

This rare guan, which together with *P. kujubi* and *P. jacutinga* forms a natural (probably conspecific) group within the genus, is known only from Trinidad, where it is mainly confined to the northern range and the extreme south of the island. It was originally based upon a live bird of doubtful origin, but specimens recently collected in Trinidad agree perfectly with Jacquin's description and plate. S. M. Klages notes the color of the chin and throat as "cobalt blue" in fresh specimens.

Material examined.—Trinidad: Caparo, 1; Rio Claro Railway, seven miles from Tabaquite, 1; Aripo, summit north of Guacharo Cave (alt. 2,400 ft.), 1.

Cumana kujubi Ihering, Cat. Faun. Braz., 1, p. 17, 1907 (range).

Pipile pipile kujubi Peters, Bds. World, 2, p. 22, 1934 (range).

Range.—Northeastern Brazil, south of the Amazon, from Pará west to the Rio Tapajóz.¹

Conover Collection.—11: Brazil (Rio Capim, Resacca, 3; Villa Acará, Rio Acará, 2; Boim, Rio Tapajóz, 2; Caxiricatuba, Rio Tapajóz, 4).

****Pipile jacutinga* (Spix). BLACK-FRONTED PIPING GUAN.**

Penelope jacutinga Spix, Av. Spec. Nov. Bras., 2, p. 53, pl. 70, 1825—"inter Bahiam et Rio de Janeiro" (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 689, 1906); Pelzeln, Orn. Bras., 3, p. 283, 1870—São Paulo (Ypanemá, Itararé) and Bahia; Berlepsch, Journ. Orn., 22, p. 249, 1874—Blumenau, Santa Catharina.

Penelope leucoptera Wied, Reise Bras., 1, p. 139 [8vo ed., p. 136], 1820—São Fidelis, Rio Parahyba do Sul, Prov. Rio de Janeiro (nomen nudum);² idem, Beitr. Naturg. Bras., 4, (2), p. 544, 1833—southeastern Brazil (descr. orig.; cotypes in collection of Prince Wied, now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 270, 1889).

Penelope nigrifrons ("Temminck") Lesson, Traité d'Orn., livr. 7, p. 482, April, 1831—"Pará, du Brésil" errore, = Rio de Janeiro (type, collected by Quoy and Gaimard, in the Paris Museum).³

Penelope pipile (not *Craz pipile* Jacquin) Burmeister, Syst. Uebers. Th. Bras., 3, p. 336, 1856—"from Colombia to Paraguay" (descr.); Pelzeln, Sitzungsber. Math.-Naturw. Kl. Akad. Wiss. Wien, 31, p. 329, 1858—Ypanemá and São Paulo (descr., soft parts).

Pipile leucolophos (not *Penelope leucolophos* Merrem) Reichenbach, Vollst. Naturg. Tauben, p. 152, 1862—part, Brazil.

Pipile jacutinga Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 530—wooded region of southeastern Brazil and Paraguay (monog.); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 178, 1885—Arroio Grande, Rio Grande do Sul; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 518, 1893—Brazil and Paraguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 23, 1895—Paraguay (Caguazú, General Caballero); Ogilvie-Grant, Handb. Game-

¹ The locality "Monte Alegre" is probably due to confusion with Cussary on the opposite (southern) bank of the Amazon. The bird does not seem to occur north of that river.

Additional material examined.—Brazil, Pará: Pará (the type), 1; Igarapé-Assú, 1.

² Wied (l.c., 2, p. 110, 1821) also records the species under the vernacular name "Jacutinga" from the Rio Ilhéos in southern Bahia.

³ The characters "front et face noirs" and "un large miroir blanc, ponctué de noir, sur l'aile" clearly point to *P. jacutinga*. The locality "Pará" is evidently a mistake, since Quoy and Gaimard, naturalists of "L'Uranie," did not visit that place, but are known to have collected in the vicinity of Rio de Janeiro.

Bds., 2, p. 251, 1897 (monog.); Holmberg, Seg. Censo Rep. Arg., p. 555, 1898—Misiones; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 147, 1899—Rio Grande do Sul south to Porto Alegre and Rio Camaquã; idem, Rev. Mus. Paul., 3, p. 411, 1899—São Paulo; idem, l.c., 4, p. 164, 1900—Cantagallo, Rio de Janeiro; Bertoni, Anal. Cient. Parag., 1, p. 21, 1901—Rio Monday, Rio Acaray, etc., Paraguay; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 179, 1906—foot of Serra do Itatiaya, Rio de Janeiro; Hellmayr, Nov. Zool., 13, p. 49, 1906 (char.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 190, 1910—Misiones; Salvadori, Riv. Ital. Orn., 3, p. 53, 1914 (monog.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 114, 1926—Rio Ivahy, Salto de Uba, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 280, 1928—Serra do Itatiaya (ex Miranda); Peters, Bds. World, 2, p. 23, 1934 (range); Pinto, Rev. Mus. Paul., 19, p. 60, 1935—Rio Jucuruçú, Bahia.

Cumana jacutinga Ihering, Cat. Faun. Braz., 1, p. 17, 1907—São Paulo (Itapura) and Santa Catharina; Lüderwaldt, Zool. Jahrb., (Syst.), 27, p. 338, 1909—Serra do Itatiaya (ex Miranda); Dabbene, Bol. Soc. Physis, 1, p. 252, 1913—Santa Ana, Misiones; Bertoni, Faun. Parag., p. 35, 1914—Alto Paraná, Paraguay; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 253, 1923—Mont-Serrat, Serra do Itatiaya.

Range.—Wooded region of southeastern Brazil, from southern Bahia to Rio Grande do Sul, and the adjacent parts of Argentina (Misiones) and Paraguay (Caguazú; General Caballero, near Villarrica; Alto Paraná).¹

Field Museum Collection.—1: Brazil (São Paulo, 1).

Conover Collection.—7: Brazil (Rio das Lings, 2); Paraguay (Capitan Bado, Cerro Amambay, 5).

****Pipile cumanensis cumanensis* (Jacquin). WHITE-HEADED PIPING GUAN.**

Craz (cumanensis) Jacquin, Beytr. Gesch. Vögel, p. 25, pl. 10, 1784—Orinoco River region near Cumaná, Venezuela (based on a live bird in the imperial Menageries at Vienna).

Penelope leucolophos Merrem, Av. Icon. et Descr., fasc. 2, p. 43, pl. 12, 1786—"Guiana"² (based on a live bird in the aviaries of Mr. Ickens at Bremen); idem, Beytr. Gesch. Vögel, livr. 2, pl. 12, 1786.³

Penelope pipile (not *Craz pipile* Jacquin) Tschudi, Arch. Naturg., 10, (1), p. 309, 1844—Peru; Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p.

¹ Additional material examined.—Brazil: Between Bahia and Rio de Janeiro, 1 (the type); Ypanemá, São Paulo, 1; Itararé, São Paulo, 2; Jaraguá, Santa Catharina, 6.

² Merrem identifies his bird with *C. cumanensis* Jacquin and "L'Yacou" Bajon (Mém. Hist. Cayenne et Guiane Franç., 1, pp. 398-405, pl. 5, 1777), a good description of the present species, and quotes from these authors the localities Cayenne, Oyapock, Orinoco River, etc.

³ In the text of the German version the bird figures only under the vernacular name "Weissshaubigter Yaku."

745, 1849—coastal forests of British Guiana; Selater, Proc. Zool. Soc. Lond., 23, p. 163, 1855—Bogotá; idem, l.c., 26, p. 76, 1858—Rio Napo, Ecuador; Bates, Natur. Amaz., p. 295, 1863—north bank of Amazon opposite Catuá, near Ega, Brazil; B. Brown, Canoe and Camp Life Brit. Guiana, pp. 180, 345, 1877—Burroburro and Corentyne rivers.

Penelope cumanensis Pelzeln, Sitzungsber. Math.-Naturw. Kl. Akad. Wiss. Wien, 31, p. 330, 1858—part, Rio Negro and Rio Branco; Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 598—Cosnipata, Dept. Cuzco, Peru.

Pipile natereri [sic] (not *P. nattereri* Reichenbach, l.c., p. 154) Reichenbach, Vollst. Naturg. Tauben, 2, p. 189, 1862—Santa Fé de Bogotá.

Penelope nattereri Pelzeln, Orn. Bras., 3, p. 283, 1870—part, Marabitanas, Rio Negro, Brazil and Maynas, Peru (spec. examined).

Pipile cumanensis Selater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 529—part, British Guiana, Venezuela, "Bogotá," Rio Negro, and eastern Peru (Cosnipata); idem, l.c., 1873, p. 307—Santa Cruz, Rio Huallaga, Peru; Taczanowski, l.c., 1874, p. 558—Monterico, Peru; idem, Orn. Pér., 3, p. 276, 1886—Peru (Santa Cruz, Monterico); Salvin, Ibis, 1886, p. 175—British Guiana (ex Schomburgk); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 517, 1893—part, spec. a-h, k, British Guiana (Takutú River), Colombia ("Bogotá"), Ecuador (Sarayacu), and Peru (Cosnipata); idem, Handb. Game-Bds., 2, p. 250, 1897—part, British Guiana, Venezuela, Colombia, Rio Negro, and Ecuador (Rio Napo); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 38, 1900—Rio Zamora and Rio Santiago, eastern Ecuador; Goodfellow, Ibis, 1902, p. 229—Rio Napo; Berlepsch and Hartert, Nov. Zool., 9, p. 121, 1902—Rio Orinoco (Munduapo, Nericagua) and Caura Valley (La Prición, Nicaré), Venezuela; Berlepsch and Stolzmann, Ornith., 13, p. 125, 1906—Rio Cadena, Marcapata, Peru; Berlepsch, Nov. Zool., 15, p. 297, 1908—Cayenne (ex Merrem, ex Bajon); Ménégau, Rev. Franç. d'Orn., 1, p. 319, 1910—Pisana, Rio Huallaga, Peru; Salvadori, Riv. Ital. Orn., 3, p. 50, 1914 (monog.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 357, 1916—upper Orinoco from Maipures onwards; Chapman, Bull. Amer. Mus. N. H., 36, p. 197, 1916—La Morelia, Caquetá, Colombia; Chubb, Ibis, 1919, p. 20—part, Rio Perené, Junín, Peru (crit.); Chapman, Bull. U. S. Nat. Mus., 117, p. 45, 1921—Rio Comerciato, Urubamba, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Curaray River, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 355, 1927—Rio Suno, Ecuador.

Pipile cumanensis cumanensis Hellmayr, Nov. Zool., 15, p. 97, 1908 (char., range); Chapman, Bull. Amer. Mus. N. H., 55, p. 155, 1926—Rio Suno and below San José, Ecuador; Peters, Bds. World, 2, p. 23, 1934 (range).

Cumana cumanensis Ihering, Rev. Mus. Paul., 6, p. 451, 1905—Rio Juruá, Brazil; idem, Cat. Faun. Braz., 1, p. 16, 1907—Rio Juruá; Chubb, Bds. Brit. Guiana, 1, p. 29, 1916—Pomeroon, Takutú, and Burroburro rivers.

Range.—French Guiana (Oyapock [fide Bajon]); British Guiana; southern Venezuela (Orinoco-Caura basin); northern Brazil (Rio Branco and Rio Negro south to the north bank of the Rio Solimões);

eastern Colombia (La Morelia, Caquetá); eastern Ecuador; eastern Peru south to Marcapata.¹

Field Museum Collection.—3: British Guiana (Corentyne, 1; unspecified, 1; Pairima Camp, New River, 1).

Conover Collection.—11: Brazil (Amazonas, Rio Carataramani, Serra do Pacu, 1); Ecuador (Concepción, 5; San José, 1; Lagarto Yacu, 1; Raya-Yaco, 1); Peru (Rio Ucayali, Calleria, 1; unspecified, 1).

****Pipile cumanensis nattereri* Reichenbach.² NATTERER'S PIPING GUAN.**

Pipile nattereri Reichenbach, Vollst. Naturg. Tauben, p. 154, Novit., pl. 9, fig. 5060,³ 1862—based on *Penelope cumanensis* Pelzeln, Sitzungsber. Math.-Naturw. Kl. Akad. Wiss. Wien, 31, p. 330, 1858; Rio das Frechas [Flechas], near Cuyabá, Matto Grosso, Brazil (type lost, formerly in Vienna Museum);⁴ Hellmayr, Bull. Brit. Orn. Cl., 14, p. 60, 1904—Para-

¹ We are unable to perceive any constant differences between birds from the Orinoco Valley (topotypical) and others from British Guiana, Brazil, and Upper Amazonia.

Additional material examined.—British Guiana: Takutú River, 4; unspecified, 1.—Venezuela: Nericagua, Orinoco, 2; Munduapo, Orinoco, 3; La Prición, Caura, 5; Nicaré, Caura, 1.—Colombia: "Bogotá," 2.—Ecuador: Sarayacu, 2; Coca, Rio Napo, 1.—Peru: Maynas, 1; Loretoyacu, 1; Tocache, 1; Chuchúrras, Huánuco, 1; Cosnipata, 1.—Brazil: Marabitanas, Rio Negro, 1.

² *Pipile cumanensis nattereri* Reichenbach: Similar to the nominate race, but lower throat more extensively denuded and, together with the wattle, flesh red in life instead of cobalt or slate blue; upper parts generally darker, steel-green rather than bronze-green.

The differences between *nattereri* and *grayi* do not seem to be racial, and while we cannot make out the nature of the variations, they are certainly not geographic. The color of the denuded lower throat, which is bright red in contrast to the dark indigo or cobalt blue (slaty blackish in dried skins) of the upper throat and chin, evidently is the best character. It is quite noticeable in a series from Goyáz (Rio Araguaya) and several specimens from Matto Grosso. An adult male from the south bank of the Rio Solimões, which should pertain to *P. c. naumburgae*, is exactly the same, and we fail to understand why Mr. Todd has described the Rio Purús bird as new, its differentiating characters being just those that separate *nattereri* from *cumanensis*. As to the so-called *P. grayi*, with more pronounced white stripes on the hind neck, more hirsute, dusky-streaked crest-feathers, and a long, slender, pendulous caruncle on the lower throat, most of the individuals examined are either females or immature. They are from parts of Matto Grosso where normal specimens of *nattereri* also occur. Pinto records *nattereri* from São Luiz de Cáceres and *grayi* from the Rio Piquiri, both places being in western Matto Grosso. An adult male from the Paraguayan Chaco and another from Carandasinho, near Corumbá, Matto Grosso, are again aberrant, having the lower throat not reddish flesh color, but merely paler gray (in dried skins) than the chin.

Additional material examined.—Paraguay: island near Concepción, 1.—Brazil: Matto Grosso, Carandasinho, 1; Sangrador, 1; Ilha do Carvalho, Rio Guaporé, 1; "River journey of Matto Grosso," 1; Rio Araguaya, Goyáz, 5; Lago Manaqueri, Rio Solimões, 1.—Bolivia: Santa Cruz, 1; Curiche de San Ramón, Chiquitos, 1.

³ The plate is wrong as to the color of the lower throat, which is described by Natterer in his notes on the freshly killed specimen as "varnish red."

⁴ The type, exchanged to Prince Sulkowsky, has disappeared.

- guay (crit.); Salvadori, Riv. Ital. Orn., 3, p. 51, 1914—Carandasinho, Matto Grosso (monog.).
- Penelope jacquini* (not *Pipile jacquini* Reichenbach) G. R. Gray, List Spec. Bds. Brit. Mus., 5, Gallinae, p. 8, 1867—"Peru," errore (type in British Museum examined).
- Penelope grayi* Pelzeln, Orn. Bras., 3, p. 284, 1870—Sangrador and "River journey of Matto Grosso," Matto Grosso (new name for *P. jacquini* Gray; spec. in Vienna Museum examined).
- Penelope nattereri* Pelzeln, Orn. Bras., 3, p. 283, 1870—part, Matto Grosso (Nas Frechas; Villa Maria; Ilho do Carvalho, Rio Guaporé) and Rio Solimões (Lago do Manaqueri), Brazil (spec. examined).
- Pipile cumanensis* (not *Craz cumanensis* Jacquin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 529—part, Bolivia; Burmeister, l.c., 1871, p. 701—Santa Cruz de la Sierra, Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1889—falls of the Rio Madeira, Bolivia; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 517, 1893—part, spec. i, "Peru," and hab. Bolivia and Matto Grosso; idem, Handb. Game-Bds., 2, p. 250, 1897—part, Matto Grosso and Bolivia; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 15, 1900—Carandasinho, Matto Grosso; Grant, Ibis, 1911, p. 461—Paraguay (Concurrencia, Alto Paraguay, below the confluence of the Rio Apa) and Matto Grosso (Pão de Azucar); Chubb, Ibis, 1919, p. 20—part, Charuplaya, Dept. La Paz, Bolivia.
- Cumana nattereri* Ihering, Cat. Faun. Braz., 1, p. 17, 1907—Matto Grosso, Bolivia, and "Peru" (errore); Bertoni, Faun. Parag., p. 35, 1914—Paraguay.
- Pipile cumanensis nattereri* Hellmayr, Nov. Zool., 15, pp. 96, 97, 1908—Rio Araguaya, Goyáz (char., range); Lima, Rev. Mus. Paul., 12, (2), p. 93, 1920—western Matto Grosso; Naumburg, Bull. Amer. Mus. N. H., 60, p. 64, 1930—Descalvados, Matto Grosso; Pinto, Rev. Mus. Paul., 20, p. 35, 1936—Rio das Almas, Goyáz; Peters, Bds. World, 2, p. 23, 1934 (range).
- Pipile cumanensis grayi* Hellmayr, Nov. Zool., 15, p. 98, 1908—Paraguay and Matto Grosso (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 190, 409, 1910—Chaco, "Tucumán," and Bolivia (Santa Cruz de la Sierra); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 83, 1930—Curiche de San Ramón, Chiquitos, Bolivia; Peters, Bds. World, 2, p. 23, 1934 (range); Krieg and Schuhmacher, Verh. Orn. Ges. Bay., 21, p. 14, 1936—northeastern Paraguay, Rio Apa (habits).
- Pipile cumanensis* subsp. Naumburg, Bull. Amer. Mus. N. H., 60, p. 65, 1930—Rio Roosevelt, Matto Grosso.
- Pipile cumanensis naumburgae* Todd, Proc. Biol. Soc. Wash., 85, p. 213, Nov. 26, 1932—Arimã, Rio Purús, Brazil (type in the Carnegie Museum, Pittsburgh); Peters, Bds. World, 2, p. 23, 1934—from the Purús to the Teodoro River, Brazil.

Range.—Interior of Brazil, from the south bank of the Rio Solimões (Lago do Manaqueri) and (?) the Rio Tapajóz¹ south

¹ *Pipile cumanensis* Allen, Bull. Essex Inst., 8, p. 82, 1876—Santarém; Riker and Chapman, Auk, 8, p. 162, 1891—Santarém (ex Allen); Snethlage, Bol. Mus.

through Goyáz to southern Matto Grosso; eastern Bolivia; Paraguay, and the adjacent section of the Argentine Chaco.¹

Conover Collection.—5: Bolivia (Buenavista, Santa Cruz, 4); Paraguay (40 km. west-southwest of Capitan Bado, Cerro Amambay, 1).

Genus **ABURRIA** Reichenbach

Aburria Reichenbach, Av. Syst. Nat., p. xxvi, 1852—type, by monotypy, *Aburria carunculata* Reichenbach;² idem, Vollst. Naturg. Tauben, p. 141, 1862—same type.

Opetioptila Sundevall, Meth. Nat. Av. Disp. Tentamen, p. 118, 1872—new name for *Aburria* Reichenbach.

**Aburria aburri* (Lesson). BLACK WATTLED GUAN.

Penelope aburri (Goudot MS.) Lesson, Man. d'Orn., 2, p. 215, 1828—mountains of New Granada (environs of Muzo and Bogotá, and in the Quindíú Range between Ibaguë and Carthago) (location of type not stated); idem, Dict. Sci. Nat., 59, p. 191, 1829—same localities; idem, Traité d'Orn., livr. 7, p. 482, Apr., 1831—Colombia.

Aburria carunculata Reichenbach, Av. Syst. Nat., p. xxvi, 1852;² Sclater, Proc. Zool. Soc. Lond., 25, p. 19, 1857—near Bogotá; idem, l.c., 26, p. 76, 1858—Rio Napo, Ecuador; Reichenbach, Vollst. Naturg. Tauben, p. 141, 1862—Colombia (new name for *Penelope aburri* Lesson); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 530—Colombia (Cauca Valley and Mountains of Quindíú) and Rio Napo, Ecuador (descr.); Taczanowski, l.c., 1874, p. 558—Amable Maria and Ropaybamba, Junín, Peru; idem, l.c., 1879, p. 243—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 544—Cauca and Frontino, Colombia (eggs descr.); Taczanowski, Orn. Pér., 3, p. 277, 1886—Peru (Amable Maria, Ropaybamba, Tambillo); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 39, 1900—Valle del Rio Zamora, Ecuador.

Aburria aburri Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 520, 1893—Colombia (Antioquia, Bogotá) and Ecuador (Chiquinda); idem, Handb. Game-Bds., 2, p. 254, 1897 (monog.); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 46—Garita del Sol, Peru; idem, Ornith., 13, p. 100, 1906—Idma, Urubamba, Peru; Chapman, Bull. Amer. Mus. N. H., 36, p. 197, 1917—Colombia (Gallera; near San Agustín; La Candelá; Andalucía); Chubb, Ibis, 1919, p. 21—Mirador (Baños), Prov. Azuay, and Baeza, Ecuador; Chapman, Bull. U. S. Nat. Mus., 117, p. 45,

Goeldi, 8, p. 57, 1914—Santa Elena, Rio Jamauchim. These references are more likely to belong to *P. c. nattereri* than to typical *P. c. cumanensis*, but material is lacking.

¹ Burmeister (Journ. Orn., 8, p. 259, 1860; Reise La Plata St., 2, p. 499, 1861) records "*Penelope pipile*" from Tucumán, where no representative of the genus has been found since, but does not seem to have secured specimens.

² Reichenbach gives no description, but quotes "Ic. Av., pl. 269, fig. 1500," supposedly published on June 16, 1848.

1921—Rio Cosireni and Rio San Miguel, Urubamba, Peru; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 32, 1922—La Azulita, Mérida; Chapman, Bull. Amer. Mus. N. H., 55, p. 156, 1926—eastern Ecuador (Rio Napo, Rio Sardinas, below Oyacachi, Baeza, lower Sumaco, Macas, Sabanilla, Zamora; descr. of young); Peters, Bds. World, 2, p. 23, 1934—Venezuela to Peru.

Range.—Subtropical zone of the Andes from western Venezuela (Cordillera of Mérida) and Colombia (all three ranges) through eastern Ecuador and Peru south to the Urubamba Valley, Dept. of Cuzco.¹

Field Museum Collection.—1: Colombia ("Bogotá," 1).

Conover Collection.—13: Venezuela (Mérida, Azulita, 1); Colombia (La Costa, El Tambo, Cauca, 2; La Plata, Huila, 3; Rio Michinque, El Tambo, Cauca, 1); Ecuador (Tamia Urco, 1; Rio Bermejo, 1; Cerro Chinipallas, 1; Cerro Tutapisco, 1; Baeza, 1); Peru (Cushi Libertad, 1).

Genus OREOPHASIS G. R. Gray

Oreophasis G. R. Gray, Gen. Bds., 3, p. [485], July, 1844—type, by monotypy, *Oreophasis derbianus* G. R. Gray.

**Oreophasis derbianus* G. R. Gray. DERBY'S MOUNTAIN PHEASANT.

Oreophasis derbianus G. R. Gray [and Mitchell], Gen. Bds., 3, p. [485], pls. 121, fig. 3, and cxxi, July, 1844—Guatemala (type in collection of Lord Derby, now in Liverpool Museum); Slater and Salvin, Ibis, 1859, p. 224—Volcan de Fuego, Guatemala; Salvin, Ibis, 1860, pp. 43, 248—Volcan de Fuego (habits, altitudinal range, descr. of female); Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 541—Volcan de Fuego (monog.); Salvin, Ibis, 1874, p. 188—above Chicaman, left bank of Rio Negro, Guatemala; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 489, 1893—Volcan de Fuego, Guatemala; idem, Handb. Game-Bds., 2, p. 218, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 274, 1902—Guatemala (Volcan de Fuego, Chicaman, Cerro Zunil); Griscom, Bull. Amer. Mus. N. H., 64, p. 99, 1932—Volcan San Lucas, Guatemala; Peters, Bds. World, 2, p. 24, 1934 (range); Carriker and Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 413, 1935—Chichoy, Guatemala.

"*Penelope fronticornis* van der Hoeven, Handb. Zool., 2, (2), p. 435, 1856—Guatemala."²

¹ While Mérida birds agree well with those from Colombia, a series from Peru averages somewhat smaller.

Additional material examined.—Colombia: Bogotá, 3.—Ecuador: Baeza, 2; Rio Napo, 2.—Peru, Dept. Huánuco: Pozúzo (alt. 800 meters), 2; Cushi Libertad (alt. 1,820 meters), 10.

² We have not been able to verify the above reference, the second part of volume 2 being missing in the two copies consulted.

Oreophasis derbyana Reichenbach, Vollst. Naturg. Tauben, p. 155, 1862—Guatemala.

Range.—Temperate mountain forests of Guatemala.

Field Museum Collection.—14: Guatemala (Capetillo, 1; San Marcos, Volcan Tajumulco, 12; Santa Elena, near Tecpan, 1).

Conover Collection.—1: Guatemala (Coban, Alta Verapaz, 1).

Family TETRAONIDAE. Grouse and Ptarmigan

Genus DENDRAGAPUS Elliot¹

Dendragapus Elliot, Proc. Acad. Nat. Sci. Phila., 16, p. 23, Apr. 23, 1864—type, by subs. desig. (Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., Land Birds, 3, p. 415, 1874), *Tetrao obscurus* Say.

**Dendragapus obscurus flemingi* Taverner.² FLEMING'S GROUSE.

Dendragapus obscurus flemingi Taverner, Auk, 31, p. 385, 1914—near Teslin Lake, Yukon Territory (type in Museum of the Geological Survey, Department of Mines, Canada); Swarth, Univ. Calif. Publ. Zool., 24, p. 203, 1922 (tax., Stikine region); idem, l.c., 30, p. 73, 1926 (crit.); Bent, Bull. U. S. Nat. Mus., 162, p. 102, 1932 (life history).

Dendragapus obscurus richardsonii (not *Tetrao richardsonii* Douglas) Peters, Bds. World, 2, p. 29, 1934—part, southern Yukon and northern British Columbia.

Range.—Southwestern Mackenzie, southern Yukon Territory, and northern British Columbia.

Conover Collection.—4: Yukon Territory (Lake La Barge, 1; Carcross, 2; Livingston, 1).

¹ It has been thought best, as suggested by Brooks and Swarth, to divide this genus into two species, so as to show better the relationships between the different forms. The *obscurus* group is differentiated from the *fuliginosus* group by having twenty tail feathers instead of eighteen; and in the adults by having the tips to the rectrices almost square, giving a truncated appearance to the tail; whereas in the races of *fuliginosus* the adults have the tips of the rectrices rounded and the tail has a somewhat graduated appearance (cf. Swarth, Univ. Calif. Publ. Zool., 30, p. 73, 1926). In addition, the downy young of the two groups differ widely in coloration. Newly hatched chicks of the races of *obscurus* are grayish, while those of the subspecies of *fuliginosus* are yellowish (cf. Moffitt, Auk, 55, p. 589, pl. 19, 1938). In life there are other differences such as the voice and the color and structure of the gular sacs in males in the spring.

It should be stated here that in the young birds (until a year old) the tail feathers are much narrower than in the adults, and in both groups the tips are rounded.

² *Dendragapus obscurus flemingi*: Males like *richardsonii*, without light band at tip of tail, but much darker both above and below, much less vermiculated with light brown and gray on upper wing coverts, scapulars, and upper tail coverts. Females, perhaps, slightly grayer (less brownish) dorsally, tip of tail vermiculated with gray. When large series of adults in fresh fall plumage are compared this race may prove to be not very different from *richardsonii*.

***Dendragapus obscurus richardsonii** (Douglas).¹ RICHARDSON'S GROUSE.

Tetrao richardsonii Douglas, Trans. Linn. Soc. Lond., 16, (1), p. 141, 1829—sub-alpine regions of the Rocky Mountains in lat. 52° N., long. 115° W . . . the mountainous districts of the Columbia in lat. 48° N., long. 118° W., = Jasper House, Alberta (type apparently lost).

Dendragapus richardsonii Elliot, Mon. Tetr., pl. 8, text unpagcd, 1865.

Dendragapus richardsoni Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 76, 1893; idem, Handb. Game-Bds., 1, p. 61, 1896 (monog.).

Dendragapus obscurus richardsoni Dwight, Auk, 17, p. 143, 1900 (molt); Anthony, Auk, 20, p. 24, 1903 (migration); Brooks, Auk, 24, p. 167, 1907 (hybrid with *Pedioceles phasianellus columbianus*); idem, Auk, 43, p. 281, 1926 (display); Bent, Bull. U. S. Nat. Mus., 162, p. 96, 1932 (life history); Moffitt, Auk, 55, p. 589, pl. 19, fig. 2, 1938 (downy young).

Dendragapus obscurus richardsonii Peters, Bds. World, 2, p. 29, 1934—part, except southern Yukon and northern British Columbia.

Range.—Rocky Mountains from western Alberta and central British Columbia south to southern Montana and south-central Idaho.

Field Museum Collection.—11: Alberta (Calgary, 2; Canadian National Park, 1); Montana (Columbia Falls, 4); British Columbia (Kootenay Range, White Swan Lake, 4).

***Dendragapus obscurus obscurus** (Say). DUSKY GROUSE.

Tetrao obscurus Say, in Long's Exped., 2, p. 14, 1823, note—"Defile Creek"—about twenty miles north of Colorado Springs, Colorado (type lost).

Dendragapus obscurus Elliot, Mon. Tetr., pl. 7, text unpagcd, 1865—part; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 74, 1893; idem, Handbook Game-Bds., 1, p. 58, 1896 (monog.); Dwight, Auk, 17, p. 143, 1900 (molt).

Dendragapus obscurus obscurus Brooks, Auk, 46, p. 111, 1929 (crit.); Bent, Bull. U. S. Nat. Mus., 162, p. 91, 1932 (life history); Peters, Bds. World, 2, p. 29, 1934 (range); Moffitt, Auk, 55, p. 589, pl. 19, fig. 1, 1938 (downy young).

Range.—Rocky Mountain region from northern Wyoming and southeastern Idaho, south to central New Mexico and central Arizona.

Field Museum Collection.—15: Utah (Wasatch County, 2); Colorado (Rio Blanco County, 2; Hot Sulphur Springs, 2; Coulter, 4; Williams Range, 2; Boulder, 1; Buford, 2).

Conover Collection.—16: Wyoming (Dubois, 2; Laramie, 1); Utah (Iron County, Avon, 2); Colorado (Routt County, Pinnacle, 11).

¹ *Additional material examined.*—Montana: Deer Lodge County, 2.—British Columbia: Creston, 3; Kitchener, 1.

***Dendragapus obscurus pallidus** Swarth.¹ OREGON DUSKY GROUSE.

Dendragapus obscurus pallidus Swarth, Proc. Calif. Acad. Sci., (4), 20, p. 4, May 22, 1931—Cornucopia, Baker County, Oregon (type in Mailliard Collection, California Academy of Science, San Francisco, examined); Peters, Bds. World, 2, p. 29, 1934 (range).

Range.—South-central British Columbia south over eastern Washington to northeastern Oregon.

Conover Collection.—2: British Columbia (Okanagan, 1; Okanagan Landing, 1).

***Dendragapus fuliginosus sitkensis** Swarth.² SITKA GROUSE.

Dendragapus obscurus sitkensis Swarth, Condor, 23, p. 59, 1921—Kupreanof Island, southeastern Alaska (type in Museum of Vertebrate Zoology, Berkeley, Calif.); Peters, Bds. World, 2, p. 28, 1934 (range).

Dendragapus obscurus munroi Griscom, Amer. Mus. Nov., 71, p. 1, 1923—Queen Charlotte Islands, British Columbia (type in L. C. Sanford Collection, the American Museum of Natural History, New York).

Dendragapus fuliginosus sitkensis A. O. U. Check List N. Amer. Bds., 4th ed., p. 79, 1931; Bent, Bull. U. S. Nat. Mus., 162, p. 119, 1932 (life hist.); Moffitt, Auk, 55, p. 589, pl. 19, fig. 5, 1938 (downy young).

Range.—Coastal mountains from Skagway, Alaska, south to about the Gardner Canal, British Columbia; islands of the Alexander Archipelago, and Queen Charlotte Islands.

Field Museum Collection.—10: Alaska (Juneau, 1); British Columbia (Graham Island, 9).

Conover Collection.—10: British Columbia (Graham Island, 1; Graham Island, Masset, 9).

***Dendragapus fuliginosus fuliginosus** (Ridgway). SOOTY GROUSE.

Canace obscura var. *fuliginosa* Ridgway, Bull. Essex Inst., 5, No. 12, p. 199, Dec., 1873—Cascade Mountains (at foot of Mount Hood, Oregon) and Chiloweyuck Depot, Washington (type in U. S. National Museum).

¹ *Dendragapus obscurus pallidus* Swarth: Like *obscurus* in coloration, but without gray band at end of tail. Resembles *richardsonii* in lacking pale tip to tail, but of a generally paler coloration. Comparison of large series in fresh fall plumage is necessary before this race can definitely be said to differ from *richardsonii*.

Additional material examined.—British Columbia: Barriere, 2.—Oregon: Cornucopia, 5.

² *Dendragapus fuliginosus sitkensis* Swarth: Males similar to *fuliginosus*, but in the extreme north, at least, somewhat darker. Females much redder than

Dendragapus obscurus (not *Tetrao obscurus* Say) Elliot, Mon. Tetr., pl. 7, text unpag'd, 1865—part.

Dendragapus fuliginosus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 75, 1893; idem, Handb. Game-Bds., 1, p. 60, 1896 (monog.).

Dendragapus obscurus fuliginosus Anthony, Auk, 16, p. 180, 1899 (hybrid with *Phasianus torquatus*); Dwight, Auk, 17, p. 143, 1900 (molt); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 552, 1918—range in California; Jewett, Condor, 34, p. 191, 1932 (hybrid with *Phasianus colchicus*); Peters, Bds. World, 2, p. 28, 1934 (range).

Dendragapus fuliginosus fuliginosus Johnson, Auk, 46, p. 291, 1929 (habits, Mount Rainier); Bent, Bull. U. S. Nat. Mus., 162, p. 103, 1932 (life history); Moffitt, Auk, 55, p. 589, pl. 19, fig. 6, 1938 (downy young).

Range.—Coastal mountains on the North American mainland from about the Gardner Canal, British Columbia, south to north-western California; Vancouver Island.¹

Field Museum Collection.—6: British Columbia (Vancouver Island, Comox, 1; Vancouver, 1); Washington (Puyallup, 2); Oregon (Wilbur, 1; Logan, 1).

Conover Collection.—23: British Columbia (Vancouver Island, Comox, 8; Bella Coola District, Stuie, 7); Washington (Whatcom County, 2); Oregon (Scio, 3; Jackson County, Gold Hill, 2); California (Mendocino County, Yorkville, 1).

***Dendragapus fuliginosus sierrae* Chapman.² SIERRA GROUSE.**

Tetrao californica (not *T. californicus* Shaw and Nodder) May, California Game "Marked Down," p. 41, 1896—Lake Tahoe region, Eldorado County (no type extant; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 268, 1932).

Dendragapus obscurus sierrae Chapman, Bull. Amer. Mus. N. H., 20, p. 159, Apr. 25, 1904—Echo, El Dorado County, California (type in the American Museum of Natural History, New York, examined); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 544, 1918—part, except Mount Pinos; Peters, Bds. World, 2, p. 29, 1934 (range).

Dendragapus fuliginosus sierrae, A. O. U. Check List N. Amer. Bds., 4th ed., p. 79, 1931; Bent, Bull. U. S. Nat. Mus., 162, p. 114, 1932 (life history); Moffitt, Auk, 55, p. 589, pl. 19, fig. 4, 1938 (downy young).

any other race of either *fuliginosus* or *obscurus*; chest more heavily marked with reddish buff and bordered below by distinct white band.

Additional material examined.—Alaska: Baranof Island, Rodman Bay, 1.—British Columbia: Graham Island, 4; Porcher Island, Refuge Bay, 1.

¹ *Additional material examined*.—Vancouver Island: Comox, 2; Merville, 2.

² *Dendragapus fuliginosus sierrae* Chapman: Like *fuliginosus*, but much lighter in color. Males with upper surface much more heavily vermiculated, throat whiter, under parts paler gray. Females much lighter and grayer.

Material examined.—California: Echo, 4; Mount Tallac, 1; Sierra Madre Mountains, Walker Pass, 1.—Nevada: Tuscarora, 1.

Range.—From southern Oregon south in the Sierra Nevada to about lat. 36° N. and in the inner coast ranges to Mount Sanhedrin, California; probably western Nevada.

***Dendragapus fuliginosus howardi* Dickey and van Rossem.¹**
MOUNT PINOS GROUSE.

Dendragapus obscurus howardi Dickey and van Rossem, Condor, 25, p. 168, Oct., 1923—Mount Pinos, 7,500 feet, Kern County, California (type in collection of Donald R. Dickey, now in the University of California at Los Angeles); Pemberton, Condor, 30, p. 347, 1928 (nesting); Peters, Bds. World, 2, p. 29, 1934 (range).

Dendragapus obscurus sierrae (not of Chapman) Grinnell, Bryant, and Storer, Game Bds. Calif., p. 544, 1918—part, Mount Pinos.

Dendragapus fuliginosus howardi A. O. U. Check List N. Amer. Bds., 4th ed., p. 79, 1931; Bent, Bull. U. S. Nat. Mus., 162, p. 117, 1932 (life history); Moffitt, Auk, 55, p. 589, pl. 19, fig. 3, 1938 (downy young).

Range.—California, from about lat. 36° N., south in the Sierra Nevada to the Tehachapi Range, and west in those mountains to Mount Pinos.

Genus **LAGOPUS** Brisson

Lagopus Brisson, Orn., 1, pp. 26, 181, 1760—type, by tautonymy, “*Lagopus*”
Brisson=*Tetrao lagopus* Linnaeus.

****Lagopus lagopus lagopus* (Linnaeus).** WILLOW PTARMIGAN.

Tetrao Lagopus Linnaeus, Syst. Nat., ed. 10, 1, p. 159, 1758—“in Europae alpinis,” restricted type locality, Swedish Lapland, apud Hartert (Vög. Pal. Fauna, 3, p. 1859, 1921).

Tetrao albus Gmelin, Syst. Nat., 1, (2), p. 750, 1789—North America, Europe, Asia=Hudson Bay, restricted to the western side by Riley, Proc. Biol. Soc. Wash., 24, p. 233, 1911.

Lagopus albus Elliot, Mon. Tetr., pls. 17, 18, text unpagcd, 1865.

Lagopus lagopus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 40, 1893—part; idem, Handb. Game-Bds., 1, p. 36, 1896—part (monog.); Dwight, Auk, 17, p. 147, 1900 (molt).

Lagopus lagopus ungavus Riley, Proc. Biol. Soc. Wash., 24, p. 233, 1911—Fort Chimo, Ungava (type in U. S. National Museum); Bent, Bull. U. S. Nat. Mus., 162, p. 197, 1932 (life history).

Lagopus lagopus alascensis Swarth, Univ. Calif. Publ. Zool., 30, p. 87, 1926—Kowak River Delta, Alaska (type in Museum of Vertebrate Zoology, Berkeley, California); Dixon, Condor, 29, p. 213, 1927 (life history); Bent, Bull. U. S. Nat. Mus., 162, p. 200, 1932 (life history).

¹ *Dendragapus fuliginosus howardi* Dickey and van Rossem: Said to be nearest to *sierrae*, but to be paler dorsally, with coarser vermiculations and barring; under parts darker, a brownish suffusion replacing the clearer gray of *sierrae*; tail decidedly longer and much more graduated.

Lagopus lagopus albus Bent, Bull. U. S. Nat. Mus., 162, p. 178, 1932 (life history); Clark, Proc. U. S. Nat. Mus., 38, p. 54, 1911 (dist. char.).

Lagopus lagopus lagopus Peters, Bds. World, 2, p. 30, 1934 (range).

Range.—Circumpolar. In the western hemisphere breeds from west coast of central Greenland, mainland of North America south of the Arctic Archipelago, and northern Alaska south to southern Ungava, James Bay, northern Manitoba, central Mackenzie, northern Alberta, central British Columbia, and the eastern Aleutian Islands. In northern Europe and Asia from Scandinavia to the Chukchi Peninsula, south in Europe to about lat. 60°; in Siberia south to the lower Yenisei, Transbaikalia, Kamchatka, and the lower Amur.

Field Museum Collection.—Summer plumage, 7: Quebec (Ungava, 1); Alaska (St. Michael, 3; Kenai Peninsula, 3). Winter plumage, 2: Labrador (Bowdoin Bay, 1); Alaska (Nulato, 1).

Conover Collection.—Summer plumage, 50: Labrador (Straits of Belle Isle, 3); Manitoba (Churchill, 9); Yukon Territory (Big Salmon River, 3; McConnell River, 2; Rose River, 3; Wolf Lake, 2); British Columbia, Bella Coola District (Stuie, 10; Rainbow Mts., Mt. Brilliant, 5); Alaska (Hooper Bay, 9; Point Barrow, 4). Winter plumage, 5: Yukon Territory (Watson River, 2; Carcross, 1); Alaska (Ophir, 1; Mountain Village, 1).

Lagopus lagopus leucopterus Taverner.¹ WHITE-SHAFTED PTARMIGAN.

Lagopus lagopus leucopterus Taverner, Ann. Rep. Nat. Mus. Canada for 1930, p. 87, 1932—Camp Kungovik, western coast of Baffin Island, lat. 65° 35' N. (type in National Museum of Canada, Ottawa, Ontario); Sutton, Mem. Carnegie Mus., 12, (2), sect. 2, p. 94, 1932 (status); Peters, Bds. World, 2, p. 31, 1934 (range).

Lagopus lagopus (not *Tetrao lagopus* Linnaeus) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 40, 1893—part; idem, Handb. Game-Bds., 1, p. 36, 1896—part (monog.).

Range.—Arctic islands north of the American continent from Baffin Island, Southampton Island, Victoria Island (and adjacent mainland at Dolphin and Union Strait) and Banks Island northward.

¹*Lagopus lagopus leucopterus* Taverner: Resembles *L. l. lagopus* (Linnaeus), except in having the shafts of the primaries pure or nearly pure white instead of black. The first (outermost) primary shaft almost always immaculate, the second often more or less clouded; the remainder have the black color entirely absent or greatly reduced. This race may prove to be the same as *L. l. birulai* Serebrowsky (Journ. Orn., 74, p. 513, 1926) from the New Siberian Islands.

Material examined.—Baffin Island: West Coast, 2.

***Lagopus lagopus alleni Stejneger.¹ ALLEN'S PTARMIGAN.**

Lagopus alba alleni Stejneger, Auk, 1, p. 369, 1884—Newfoundland (type in U. S. National Museum).

Lagopus alleni Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 44, 1893; idem, Handb. Game-Bds., 1, p. 38, 1896 (note only).

Lagopus lagopus alleni Dwight, Auk, 17, p. 147, 1900 (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 191, 1932 (life history); Peters, Bds. World, 2, p. 32, 1934 (range).

Lagopus lagopus albus Clark, Proc. U. S. Nat. Mus., 38, p. 54, 1911 (dist., char.; in part).

Range.—Newfoundland.

Field Museum Collection.—Summer plumage, 3: Newfoundland (Bay St. George, 2; unspecified, 1). Winter plumage, 2: Newfoundland (Bay St. George, 1; Codray, 1).

Conover Collection.—Summer plumage, 2: Newfoundland (Rantem, 1; unspecified, 1).

***Lagopus lagopus alexandrae Grinnell.² ALEXANDER'S PTARMIGAN.**

Lagopus alexandrae Grinnell, Univ. Calif. Publ. Zool., 5, p. 204, 1909—Mountain at Bear Bay, Baranof Island, Alaska (type in Museum of Vertebrate Zoology, Berkeley, California).

Lagopus lagopus alexandrae Clark, Proc. U. S. Nat. Mus., 38, p. 51, 1911 (dist. char.); Bent, Bull. U. S. Nat. Mus., 162, p. 194, 1932 (life history); Peters, Bds. World, 2, p. 31, 1934 (range).

Range.—Islands off the south and southeast coasts of Alaska from the Prince of Wales Archipelago west and north to the Shumagin Islands, and possibly a narrow strip on the mainland coast from Ketchikan north to Glacier Bay.

Field Museum Collection.—Summer plumage, 1: Kodiak Island, 1.

Conover Collection.—Summer plumage, 2: Prince of Wales Island, 2.

¹*Lagopus lagopus alleni* Stejneger: Differs from all other races of *L. lagopus* by having the shafts of the primaries more heavily marked with black, which extends, towards the tips, onto the webs. This characteristic is sometimes found on mainland birds to a slight extent, and is sometimes not very evident in Newfoundland birds, but generally is well marked. The race *alleni* also often has the shafts of the secondaries black, but sometimes this is lacking.

²*Lagopus lagopus alexandrae* Grinnell: Similar to *L. l. lagopus*, but coloration darker throughout, especially dorsally.

Additional material examined.—Alaska: Chichagof Island, 1; Prince of Wales Island, 1; Glacier Bay, 1; Kodiak Island, 2; Pavloff Bay, 1.

****Lagopus mutus captus* Peters.¹ EAST GREENLAND ROCK
PTARMIGAN.**

Lagopus mutus groenlandicus (not *Lagopus Grönlandicus* Brehm, 1855) Schiøler, Dansk Orn. Foren. Tidskr., 19, pp. 111, 115, 1925—eastern Greenland=Germania Land, fide Salomonsen, Medd. om Grønland, 118, nr. 2, p. 29, 1936 (lectotype in Zoological Museum, Copenhagen); R. M. Anderson, Canad. Field Nat., 43, p. 14, footnote, 1929 (char.).

Lagopus mutus captus Peters, Bds. World, 2, p. 35, 1934 (nom. nov. for *L. m. groenlandicus* Schiøler, preoccupied); Salomonsen, Medd. om Grønland, 118, nr. 2, p. 33, 1936.

Range.—Eastern Greenland (south to Blosseville Coast).

Field Museum Collection.—Summer plumage, 9: Greenland (Ymer Islands, 1; Angmagsalik, 8).

Conover Collection.—Winter plumage, 1: Greenland (Liverpool Coast, Lille Fjord, 1).

****Lagopus mutus reinhardi* C. L. Brehm.² REINHARD'S ROCK
PTARMIGAN.**

Tetrao reinhardi C. L. Brehm, Lehrb. Nat. Eur. Vög., 2, p. 986, 1824—Greenland, restricted to west coast of Greenland south of lat. 66° by Schiøler, Dansk Orn. Foren. Tidskr., 19, p. 114, 1925—Julianehaab, fide Salomonsen, Medd. om Grønland, 118, nr. 2, footnote, p. 24, 1936.³

Lagopus rupestris var. *occidentalis* Sundevall, Oefv. Vet. Akad. Förh., No. 3, p. 20, 1874—Greenland=W. Greenland, about Fiskernaes (teste Salomonsen, Medd. om Grønland, 118, p. 30, 1936) (type in Stockholm Museum; cf. Gyldenstolpe, Ark. Zool., 19 A, No. 1, p. 112, 1926).

Lagopus grönlandicus Brehm, Vogelfang, p. 264 (footnote), 1855—Greenland.

Lagopus rupestris reinhardi Dwight, Auk, 17, p. 160, 1900 (molt); Taverner, Ann. Rep. Nat. Mus. Canada for 1928, p. 37, 1929 (dist. char. and range); Bent, Bull. U. S. Nat. Mus., 162, p. 213, 1932 (life history).

¹ *Lagopus mutus captus* Peters: Differs from *L. m. reinhardi* in being lighter, more sandy grayish, and in having the vermiculations and barrings much finer.

Additional material examined.—Summer plumage, 1: Greenland (Cape Franklin, 1).

² *Lagopus mutus reinhardi* C. L. Brehm: Very close to *L. m. americanus*, but more light sandy in appearance. When larger series are available, the birds from southwestern Greenland may not prove to be separable from those from the northwestern coast.

Lagopus dispar Ross (Voy. Discovery, 2nd ed., 2, p. 168, 1819), being a nomen nudum, has no nomenclatural standing.

Additional material examined.—Summer plumage, 1: Greenland (Sukkertoppen, 1).

³ Although not listed as such by Hartert (Nov. Zool., 25, pp. 4–63, 1918), the female from Greenland June 4, 1822, in the Brehm collection is probably the type (cf. Schiøler, Dansk Orn. Foren. Tidskr., 19, p. 114, 1925).

Lagopus rupestris reinhardtii Hantzsch, Journ. Orn., 56, p. 367, 1908 (supposed range in Labrador); M. B. and R. M. Anderson, Canad. Field Nat., 43, p. 13, 1929 (English translation of above), also footnote, p. 14 (range).

Lagopus mutus reinhardi Peters, Bds. World, 2, p. 35, 1934 (range).

Lagopus mutus rupestris (not *Tetrao rupestris* Gmelin) Salomonsen, Medd. om Grønland, 118, nr. 2, p. 32, 1936—part, southwestern Greenland.

Range.—West coast of Greenland south of Disko Island.

Field Museum Collection.—Summer plumage, 6: Greenland (Sukkertoppen, 4; Egedesminde, 1; Holstenborg, 1).

****Lagopus mutus americanus* Audubon.¹ AMERICAN ROCK PTARMIGAN.**

Lagopus americanus Audubon, Syn. Bds. N. America, p. 207, 1839—Melville Island; idem, Bds. America, 5, p. 119, pl. 300, 1842.

Lagopus rupestris (not *Tetrao rupestris* Gmelin) Elliot, Mon. Tetr., pl. 23, text unpagged, 1865—part; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 48, 1893—part; idem, Handb. Game-Bds., 1, p. 42, 1896—part (monog.).

*Lagopus rupestris nelsoni*² Stejneger, Auk, 1, p. 226, 1884—Unalaska Island (type in U. S. National Museum); Dwight, Auk, 17, p. 160, 1900 (molt).

*Lagopus dizoni*² Grinnell, Univ. Calif. Publ. Zool., 5, p. 207, 1909—near Port Frederick, 2,700 feet, Chichagof Island, Alaska (type in Museum of Vertebrate Zoology, Berkeley, California).

¹*Lagopus mutus americanus* Audubon: This name seems to have priority for the northern form of American Rock Ptarmigan. In his original description Audubon gives the range as "Melville Island, Churchill River." These two localities represent areas inhabited by two different forms as now understood. Three years later, however, in his "Birds of America," he quotes Dr. Richardson as authority for the locality "Churchill River," but further states that Richardson had never been able to trace the specimen supposed to have come from that locality. Therefore, it is evident that Audubon himself never saw birds from Churchill River. In the second description and account, however, he plainly states that he has seen three specimens in the Museum of the Andersonian Institution of Glasgow, "which were purchased from Captain Sabine" and he gives their locality as Melville Island, where Sabine is known to have wintered in 1819–20. Melville Island, therefore, should be accepted as Audubon's type locality. The specimen figured by Audubon with his second account was collected by Sabine, but evidence of its exact locality is lacking. In the original account, where the name was proposed, there was no figure.

This form is distinguished from *rupestris* by being much browner (more ruddy) in the male, and more yellowish in the female. It is the darkest of North American Rock Ptarmigan except for the form *evermanni* of Attu Island.

Additional material examined.—Summer plumage, 26. Greenland: Umanak, 1; Disko Island, 2.—Victoria Land: Taylor Island, 2.—Mackenzie: Coronation Gulf, 3.—Banks' Island: Cape Kellett, 3.—Melville Island: Griffith's Point, 2.—Alaska: Unalaska Island, 4; Zaikof Bay, Montague Island, 1; Canoe Passage, Hawkins' Island, 2; Hinchinbrook Island, 2; Port Snettisham, 1; Port Frederick, 1; mountains near Eagle, 2.

²Specimens of *nelsoni*, *kelloggae*, and *dizoni* from their "terra typica" have been compared with birds from Melville Island. The differences, if any, are so slight that, considering the individual variations in these Ptarmigan, it seems best to consider these names as synonyms of *americanus* Audubon.

*Lagopus rupestris kelloggae*¹ Grinnell, Univ. Calif. Publ. Zool., 5, p. 383, 1910—Zaikof Bay, 1,600 feet, Montague Island, Prince William Sound, Alaska (type in Museum of Vertebrate Zoology, Berkeley, California, examined); Taverner, Ann. Rep. Nat. Mus. Canada for 1928, p. 37, 1929 (descr. and range).

Lagopus rupestris nelsoni, *dixonii*, and *kelloggae* Bent, Bull. U. S. Nat. Mus., 162, pp. 215, 223, 227, 1932 (life history).

Lagopus mutus nelsoni, *dixonii*, and *kelloggae* Peters, Bds. World, 2, p. 34, 1934 (range).

Lagopus mutus rupestris Salomonsen, Medd. om Grønland, 118, nr. 2, p. 32, 1936—part, northwestern Greenland.

Lagopus mutus kelloggae Salomonsen, Medd. om Grønland, 118, nr. 2, p. 34, 1936—part, North America only.

Range.—Western Greenland north of Disko Island, the Arctic Islands, except southern Baffin Island, and northwestern North America from about Coronation Gulf west to Unimak, Unalaska, and Amaknak Islands in the Aleutian chain, and south to southern Yukon and the islands and adjacent mainland about Glacier Bay, Alaska.

Field Museum Collection.—Summer plumage, 6: Alaska (Nome, 1; Alaska Peninsula, 3; Kodiak Island, 1; Unalaska Island, 1). Winter plumage, 1: Alaska (Nome, 1).

Conover Collection.—Summer plumage, 18: Alaska (Igiak Bay, Bering Sea, 7); Yukon (head of Big Salmon River, 4; head of Rose River, 6); British Columbia (Sheep Mountains, near Atlin, 1). Winter plumage, 5: Alaska (Ophir, 4); Yukon (head of Watson River, 1).

****Lagopus mutus rupestris* (Gmelin).² CANADIAN ROCK PTARMIGAN.**

Tetrao rupestris Gmelin, Syst. Nat., 1, (2), p. 751, 1789—based on "Rock Grouse" Pennant, Arct. Zool., 2, p. 312; Hudson Bay.

Lagopus rupestris Elliot, Mon. Tetr., pl. 23, text unpagcd, 1865—part; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 48, 1893—part; idem, Handb. Game-Bds., 1, p. 42, 1896—part; Dwight, Auk, 17, p. 160, 1900 (molt).

Lagopus welchi Brewster, Auk, 2, p. 194, 1885—Newfoundland (type in Museum of Comparative Zoology, Cambridge, Mass.); Dwight, Auk, 17,

¹ See footnote 2, page 205.

² *Lagopus mutus rupestris* (Gmelin): This is the grayest of the North American forms of the Rock Ptarmigan. In coloration it most nearly resembles typical *L. m. mutus* of Sweden.

Additional material examined.—Summer plumage, 10: Labrador: McLellan Strait, 3; Ungava, Fort Chimo, 2; Ungava, Mastapoka River, 1.—Newfoundland: Codray, 2; Lecois Hills, 2.

p. 163, 1900 (molt); Bangs, Bull. Mus. Comp. Zool., 70, p. 155, 1930 (disc. types).

Lagopus rupestris rupestris Hantzsch, Journ. Orn., 56, p. 366, 1908—Labrador; M. B. and R. M. Anderson, Canad. Field Nat., 43, p. 13, 1929 (Eng. translation of above), also footnote p. 14 (range); Taverner, Ann. Rep. Nat. Mus. Canada for 1928, p. 37, 1929 (dist. char. and range); Bent, Bull. U. S. Nat. Mus., 162, p. 202, 1932 (life history); Sutton, Mem. Carnegie Mus., 12, (2), sect. 2, p. 94, 1932—Southampton Island.

Lagopus mutus rupestris and *L. m. welchi* Peters, Bds. World, 2, p. 34, 1934 (range).

Lagopus mutus rupestris Salomonsen, Medd. om Grønland, 118, nr. 2, p. 32, 1936—part, North American mainland.

Range.—Southern Baffin Island and northern North America east of Coronation Gulf south to Belle Isle Strait, Newfoundland, Great Whale River, Great Slave Lake, and the mountains of British Columbia.

Field Museum Collection.—Summer plumage, 6: Baffin Island (Bishop's Island, Frobisher Bay, 3); Newfoundland (Codray, 2; Bay St. George, 1). Winter plumage, 3: Labrador (Lance au Loup, 1); Newfoundland (Codray, 1; Bay St. George, 1).

***Lagopus mutus atkensis* Turner.¹ TURNER'S ROCK PTARMIGAN.**

Lagopus mutus atkensis Turner, Proc. U. S. Nat. Mus., 5, pp. 227, 230, 1882—Atka Island (type in U. S. National Museum); Peters, Bds. World, 2, p. 34, 1934 (range).

Lagopus rupestris atkensis Dwight, Auk, 17, p. 160, 1900 (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 218, 1932 (life history).

Range.—Aleutian Islands, Atka Island.

****Lagopus mutus chamberlaini* Clark.² CHAMBERLAIN'S ROCK PTARMIGAN.**

Lagopus rupestris chamberlaini Clark, Proc. U. S. Nat. Mus., 32, p. 469, 1907—Adak Island (type in U. S. National Museum); Bent, Bull. U. S. Nat. Mus., 162, p. 221, 1932 (life history).

Lagopus mutus chamberlaini Peters, Bds. World, 2, p. 33, 1934 (range).

¹*Lagopus mutus atkensis* Turner: The easternmost of the four light yellowish races of Rock Ptarmigan inhabiting the central islands of the Aleutian chain. Differs, like the following three subspecies, by being much more yellowish buff than any other American forms. From *chamberlaini* and *townsendi* it differs by its much finer barring, in which respect it resembles *sanfordi*, but is darker than the latter, especially on the breast.

Material examined.—Summer plumage, 4: Aleutian Islands: Atka Island, 4.

²*Lagopus mutus chamberlaini* Clark: Another race of the light yellowish group. Most nearly like *L. m. townsendi*, but not so heavily barred, and of a more grayish appearance. Intermediate between *L. m. atkensis* and *L. m. townsendi*.

Additional material examined.—Summer plumage, 5: Aleutian Islands: Adak Island, 5.

Range.—Aleutian Islands, Adak Island.

Conover Collection.—Summer plumage, 1: Aleutian Islands (Adak Island, 1).

****Lagopus mutus sanfordi* Bent.¹ SANFORD'S ROCK PTARMIGAN.**

Lagopus rupestris sanfordi Bent, Smiths. Misc. Coll., 56, No. 30, p. 1, 1912—Tanaga Island (type in U. S. National Museum); Bent, Bull. U. S. Nat. Mus., 162, p. 225, 1932 (life history).

Lagopus mutus sanfordi Peters, Bds. World, 2, p. 33, 1934 (range).

Range.—Aleutian Islands, Tanaga Island.

Conover Collection.—Summer plumage, 1: Aleutian Islands (Tanaga Island, 1).

***Lagopus mutus townsendi* Elliot.² TOWNSEND'S ROCK PTARMIGAN.**

Lagopus rupestris townsendi Elliot, Auk, 13, p. 26, 1896—Kiska Island (type in U. S. National Museum); Dwight, Auk, 17, p. 160, 1900 (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 220, 1932 (life history).

Lagopus mutus townsendi Peters, Bds. World, 2, p. 33, 1934 (range).

Range.—Aleutian Islands, Kiska Island.

***Lagopus mutus evermanni* Elliot.³ EVERMANN'S ROCK PTARMIGAN.**

Lagopus evermanni Elliot, Auk, 13, p. 25, pl. 3, 1896—Attu Island (type in U. S. National Museum); Dwight, Auk, 17, p. 163, 1900 (molt).

Lagopus rupestris evermanni Bent, Bull. U. S. Nat. Mus., 162, p. 230, 1932 (life history).

Lagopus mutus evermanni Peters, Bds. World, 2, p. 33, 1934 (range).

Range.—Aleutian Islands, Attu Island.

¹ *Lagopus mutus sanfordi* Bent: The palest of the light yellowish races. Very like *L. m. chamberlaini*, but lighter, more whitish gray in appearance. The barring is very fine.

Additional material examined.—Summer plumage, 6. Aleutian Islands: Tanaga Island, 6.

² *Lagopus mutus townsendi* Elliot: The westernmost of the light yellowish races found on the central Aleutians. Distinguished from the other three by being more thickly and heavily barred both above and below, and therefore the darkest of the four forms.

Material examined.—Summer plumage, 4. Aleutian Islands: Kiska Island, 4.

³ *Lagopus mutus evermanni* Elliot: This is the darkest of all known forms of the Rock Ptarmigan, being almost blackish in coloration. The male in summer dress has a black and white appearance, while the female is much darker than the same sex in any other race.

Material examined.—Summer plumage, 3. Aleutian Islands: Attu Island, 3.

****Lagopus leucurus peninsularis* Chapman.¹ ALASKAN WHITE-TAILED PTARMIGAN.**

Lagopus leucurus peninsularis Chapman, Bull. Amer. Mus. N. H., 16, p. 236, 1902—Kenai Mountains, Alaska (type in the American Museum of Natural History, New York, examined); Bent, Bull. U. S. Nat. Mus., 162, p. 234, 1932 (life history); Peters, Bds. World, 2, p. 35, 1934 (range).

Range.—From northwestern Mackenzie, northern Yukon, and central Alaska, south to British Columbia and the Kenai Peninsula.

Conover Collection.—Summer plumage, 7: Yukon (head of McConnell River, 7). Winter plumage, 3: Yukon (head of Watson River, 3).

****Lagopus leucurus leucurus* Richardson.² CANADIAN WHITE-TAILED PTARMIGAN.**

Tetrao (Lagopus) leucurus Richardson, in Wilson and Bonaparte, Amer. Orn., Jameson ed., 4, p. 330, 1831—Rocky Mountains, lat. 54° N. (type in the Royal Scottish Museum at Edinburgh; cf. Stoneham, Nov. Zool., 35, p. 276, 1930).

Lagopus leucurus Elliot, Mon. Tetr., pl. 25, text unpagcd, 1865; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 52, 1893—part; idem, Handb. Game-Bds., 1, p. 44, 1896—part (monog.); Dwight, Auk, 17, p. 163, 1900 (molt).

Lagopus leucurus leucurus Bent, Bull. U. S. Nat. Mus., 162, p. 232, 1932 (life history); Peters, Bds. World, 2, p. 35, 1934 (range, except Vancouver Island).

Range.—Rocky Mountain region from central Alberta and northern British Columbia south to the northern border of the United States.

Field Museum Collection.—Summer plumage, 1: Alberta (Canadian National Park, 1). Winter plumage, 2: Alberta (Canadian National Park, 2).

Conover Collection.—Summer plumage, 8: Alberta (Siffleur Valley, 1); British Columbia, Bella Coola District (Stuie, 1; Rainbow Mountains, 6).

***Lagopus leucurus rainierensis* Taylor.³ RAINIER WHITE-TAILED PTARMIGAN.**

¹*Lagopus leucurus peninsularis* Chapman: This race is distinguished by its grayer, less buff, coloration, both above and below.

Additional material examined.—Alaska: Kenai Mountains, 4.

²*Additional material examined*.—Alberta: Henry House, 1; Moose Pass, 3; Moose Branch of Smoky River, 6.—British Columbia: Mount Mumm, 1; Moose Pass, 4; Similkameen, 1.

³*Lagopus leucurus rainierensis* Taylor: In describing this race the author states that he has not seen examples of *L. l. peninsularis*. The specimens listed below from Mount Rainier do not seem to differ in color from specimens in similar

Lagopus leucurus rainierensis Taylor, Condor, 22, p. 146, 1920—Pinnacle Peak, 6,200 feet, Mount Rainier, Washington (type in U. S. National Museum, Biological Survey Collection); Bent, Bull. U. S. Nat. Mus., 162, p. 240, 1932 (life history); Peters, Bds. World, 2, p. 35, 1934 (range).

Lagopus leucurus (not of Richardson) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 52, 1893—part; idem, Handb. Game-Bds., 1, p. 44, 1896—part.

Range.—Alpine summits of Mount Rainier, and perhaps also in the Cascade Range to Oregon.

****Lagopus leucurus altipetens* Osgood.¹ SOUTHERN WHITE-TAILED PTARMIGAN.**

Lagopus leucurus altipetens Osgood, Auk, 18, p. 180, 1901—Mount Blaine, Colorado (type in U. S. National Museum); Bent, Bull. U. S. Nat. Mus., 162, p. 234, 1932 (life history); Peters, Bds. World, 2, p. 35, 1934 (range).

Lagopus leucurus (not of Richardson) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 52, 1893—part; idem, Handb. Game-Bds., 1, p. 44, 1896—part (monog.); Bradbury, Condor, 17, p. 214, 1915 (nesting, Colorado).

Range.—Rocky Mountain region of the United States from Montana to northern New Mexico.

Field Museum Collection.—Summer plumage, 1: Colorado (Bald Mountain, 1). Winter plumage, 1: Colorado (Webster, Park County, 1).

***Lagopus leucurus saxatilis* Cowan.² VANCOUVER ISLAND WHITE-TAILED PTARMIGAN.**

Lagopus leucurus saxatilis Cowan, Condor, 41, p. 82, 1939—Mount Arrowsmith, Vancouver Island, British Columbia, alt. 6,000 feet (type in

plumage taken on the Kenai Peninsula and in southern Yukon. Possibly there may be a difference in size, but more specimens are needed before this race can be considered established.

The Camp Skagit birds do not seem to be typical of *rainierensis*.

Material examined.—Washington: Berron, 1; Bald Mountain, 1; Mount Rainier, 2; Puget Sound, Camp Skagit, 4.

¹ *Lagopus leucurus altipetens* Osgood: This race has the buffy coloration of typical *L. l. leucurus*, but perhaps slightly more intense. The barring appears to be heavier. When large series are available, it may not prove to be worthy of recognition.

Additional material examined.—Colorado: James Peak, 1; Buffalo Peak, 2.

² *Lagopus leucurus saxatilis* Cowan: The junior author has examined ten specimens of this newly described race, including the type. Five were adult males, one was an adult female and the remaining four were young of the year. All were taken on September 11. On comparison with mainland birds in comparative plumage, all seemed more buffy on the upper parts, and the heads and necks were more distinctly black and white, instead of brownish gray. This latter feature was especially distinctive in the young of the year.

Material examined.—Vancouver Island: Mount Arrowsmith, 10.

the British Columbia Provincial Museum, Victoria, British Columbia, examined).

Lagopus leucurus leucurus (not of Richardson) Swarth, Univ. Calif. Pub. Zool., 10, p. 23, 1912—Mount Saunders and Della Lake, Vancouver Island; Peters, Bds. World, 2, p. 35, 1934 (range, Vancouver Island only).

Range.—Confined to Vancouver Island.

Genus CANACHITES Stejneger

Canace (not of Curtis, 1838) Reichenbach, Av. Syst. Nat., p. xxix, 1852
— type, by tautonymy, *Tetrao canace* Linnaeus.

Canachites Stejneger, Proc. U. S. Nat. Mus., 8, p. 410, 1885— substitute name for *Canace* Reichenbach, 1852, preoccupied.

**Canachites canadensis canadensis* (Linnaeus). HUDSONIAN SPRUCE GROUSE.

Tetrao canadensis Linnaeus, Syst. Nat., ed. 10, 1, p. 159, 1758—based on "The Black and Spotted Heath-cock" Edwards, Nat. Hist. Birds, 3, pl. 118 (=male); Hudson Bay.

Canace canadensis Elliot, Mon. Tetr., pl. 9, text unpagged, 1865—part.

Canachites canadensis Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 69, 1893—part; idem, Handb. Game-Bds., 1, p. 54, 1896—part (monog.); Taverner, Ann. Rep. Canada Nat. Mus., p. 89, pl., 1930 (hybrid with *Lagopus lagopus*).

Canachites canadensis labradorius Bangs, Proc. New Engl. Zool. Cl., 1, p. 47, 1899—Rigoulette, Hamilton Inlet, Labrador (type in Museum of Comparative Zoology, Cambridge, Mass.); Allen, Auk, 16, p. 340, 1899 (descr.); Bangs, Bull. Mus. Comp. Zool., 70, p. 155, 1930 (=C. c. *canadensis*).

Dendragapus canadensis Dwight, Auk, 17, p. 144, 1900 (molt).

Canachites canadensis canadensis Bent, Bull. U. S. Nat. Mus., 162, p. 120, 1932 (life history); Peters, Bds. World, 2, p. 36, 1934 (range); Uttal, Auk, 56, p. 460, 1939—part, except Alaska and central British Columbia (diag.).

Range.—From the Labrador Peninsula through the boreal forest region to the eastern base of the Rocky Mountains west of Edmonton, Alberta.¹

Field Museum Collection.—6: Labrador (Bowdoin Harbor, 1; Lance au Loupe, 2; Anatalok Bay, 1; Okak, 1; Mingan, 1).

Conover Collection.—2: Alberta (Fawcett, 2).

**Canachites canadensis canace* (Linnaeus).² CANADA SPRUCE GROUSE.

¹ Additional material examined.—Quebec: Great Whale River, 3; Ungava, 2.

² *Canachites canadensis canace* (Linnaeus): This race is very close to typical *C. c. canadensis*, but the upper parts of the males are browner, especially on the wing coverts and scapulars. In the material examined the females seem nearly

Tetrao canace Linnaeus, Syst. Nat., ed. 12, 1, p. 275, 1766—based on "La Gélinothe de Canada," Brisson, Orn., 1, p. 203, pl. 20, figs. 1, 2; Canada.

Canace canadensis (not *Tetrao canadensis* Linnaeus) Elliot, Mon. Tetr., pl. 9, text unpagcd, 1865—part.

Canachites canadensis Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 69, 1893—part; idem, Handb. Game-Bds., 1, p. 54, 1896—part (monog.).

Canachites canadensis canace Bent, Bull. U. S. Nat. Mus., 162, p. 131, 1932 (life history); Peters, Bds. World, 2, p. 36, 1934 (range); Uttal, Auk, 56, p. 462, 1939 (disc.).

Range.—From Nova Scotia,¹ New Brunswick, west to southern Ontario and Manitoba, south to Maine, New Hampshire, and New York (formerly northern Michigan, Wisconsin, and Minnesota).

Field Museum Collection.—7: New Brunswick (St. Andrews, 1); Quebec (unspecified, 2); Maine (Eastport, 1); Ontario (Toronto, 2); Minnesota (Aitkin, 1).

Conover Collection.—14: Maine (Five Finger Brook, 2; Passadunkeag, 1); Michigan (Diana, 1); Ontario (Rossport, 4; Oscar, 4); Minnesota (Duluth, 2).

****Canachites canadensis osgoodi* Bishop.² ALASKAN SPRUCE GROUSE.**

Canachites canadensis osgoodi Bishop, Auk, 17, p. 114, 1900—Lake Marsh, Yukon Territory (type in L. B. Bishop Collection, Field Museum of

alike, with a tendency in specimens from about Hudson Bay (*C. c. canadensis*) to be less rusty, more blackish. With more material Alberta birds may prove to belong to this race.

Additional material examined.—Maine: Aroostook County, 1; La Grange, 1; Madawaska, 1; unspecified, 1.

¹ Uttal (Auk, 56, p. 462, 1939) has recently separated the birds from the Gaspé Peninsula, New Brunswick, and Nova Scotia as *Canachites canadensis torridus*, using as a type specimen a bird in the American Museum of Natural History taken at Kejimikujik (Kedgemakooie on label) Lake, known also as Fairy Lake, on the boundary between Annapolis and Queens counties, Nova Scotia. In this race the females are supposed to be similar to *canace*, but with the brown areas everywhere intensified and black areas deeper-toned; tips of unworn back feathers gray suffused with brown, tannish in general appearance rather than neutral gray as in *canace*. The males are also closest to *canace* but with the plumage much more suffused with brown, especially on the upper wing coverts, upper dorsals, scapulars, and flanks. Birds from eastern Maine are thought to be assignable to this race.

Only one specimen of this supposed race has been examined, a summer male from New Brunswick. In the brownness of the upper parts it is matched by two males from Aroostook County, Maine; one each from Michigan and Minnesota; and three out of four from Rossport, Ontario. Two males from Eastport and Passadunkeag, Maine, are lighter, however, as is the fourth male from Rossport, Ontario.

² *Canachites canadensis osgoodi* Bishop: In this race the males differ from those of *C. c. canadensis* in being more olivaceous on the upper parts. From *C. c. canace* they differ by being grayer above. The females are much grayer (less buffy) both above and below than those of the other races.

Natural History, examined); Osgood, N. Amer. Fauna, 24, p. 64, 1904—Alaska Peninsula; Swarth, Univ. Calif. Pub. Zool., 24, p. 205—Stikine region; Bent, Bull. U. S. Nat. Mus., 162, p. 129, 1932 (life history); Peters, Bds. World, 2, p. 36, 1934 (range).

Canachites canadensis atratus Grinnell,¹ Univ. Calif. Pub. Zool., 5, p. 380, 1910—Cedar Bay and Canoe Passage, Hawkins Island, Prince William Sound, Alaska (type in Museum of Vertebrate Zoology, University of California, Berkeley); Bent, Bull. U. S. Nat. Mus., 162, p. 135, 1932 (life history); Peters, Bds. World, 2, p. 36, 1934 (range); Uttal, Auk, 56, p. 461, 1939—Alaska (Kenai Peninsula, Kelly River, Homer, Point Graham, and Seldovia).

Canachites canadensis canadensis Uttal, Auk, 56, p. 460, 1939—part, Alaska to central British Columbia (crit.).

Range.—From Athabaska and Great Slave lakes west through northern British Columbia and the Yukon Region of Alaska at least to the headwaters of the Kowak River, Russian Mission, the base of the Alaskan Peninsula, and the islands of Prince William Sound.

Field Museum Collection.—7: Alaska (Kenai River, 2; Kelly River, 2; upper Matanuska River, 1; Matanuska Valley, Loon Lake, 1); Yukon Territory (Lake Marsh, 1).

Conover Collection.—22: Yukon Territory (Winter Crossing, 4; Livingston, 3; head of McConnell River, 4; head of Big Salmon River, 1); British Columbia (Sheep Mountains, 1); Alaska (Kantishna River, 1; East Fork of Kuskokwim River, 2; McGrath, 1; Ophir, 2; Russian Mission, 1; Flat, 2).

****Canachites franklinii* (Douglas). FRANKLIN'S GROUSE.**

Tetrao franklinii Douglas, Trans. Linn. Soc. Lond., 16, (1), p. 139, 1829—Rocky Mountains from lat. 50°–54° N., near the sources of Columbia River (also bases of Mount Hood, Mount St. Helens, and Mount Baker).²

¹ *Canachites canadensis atratus* Grinnell: This name has been put into synonymy because the form seems very slight and its range, if any, confined to Prince William Sound, a very limited area. Evidently these birds do not represent a wide-ranging coast form, but only an extension of range to the coast where conditions favor it, as is the case in a number of other inland forms. It was described from specimens in worn breeding plumage, and many of the diagnostic characters can be attributed to that fact. Fall specimens from the mainland at Seward on the west side of Prince William Sound, as well as others from the Kenai Peninsula are typical *osgoodi*. As stated by Grinnell, Kowak River birds are grayer than Yukon Valley specimens, but the recognition of a slight form in this region is no more justified than elsewhere.

Additional material examined.—Yukon Territory: Forty-mile, 2.—Alaska: Knight Island, Prince William Sound, 1; Hawkins Island, Prince William Sound, 3; Seward, 4; Kowak River, 3.—British Columbia: Flood Glacier, 1.

² In the A. O. U. Check List, 4th ed., p. 139, there is added to the above “= Okanagan Landing.” However, Major Allan Brooks states in a letter to the junior author that Franklin's Grouse is not found at Okanagan.

Canace franklinii Elliot, Mon. Tetr., pl. 10, text unpagcd, 1865.

Canachites franklinii Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 71, 1893; idem, Handb. Game-Bds., 1, p. 56, 1896 (monog.); Riley, Canad. Alpine Jour., special number, p. 55, 1912 (British Columbia); Bergtold, Auk, 31, p. 246, 1914 (rec. Colorado); Bent, Bull. U. S. Nat. Mus., 162, p. 136, 1932 (life history); Peters, Bds. World, 2, p. 36, 1934 (range).

Range.—Southeastern Alaska (Prince of Wales, Dall, and Zarembo Islands), central British Columbia (except extreme coastal strip), and southwestern Alberta, south to northern Oregon, and western Montana.

Field Museum Collection.—9: Alberta (National Park, 2; north of Lake Louise, 1); British Columbia (Kootenay range, 2); Montana (Essex, 3; Columbia Falls, 1).

Conover Collection.—23: Alberta (Laggan, Siffleur Valley, 1); British Columbia (Cascade Mountains, near Clinton, 1; North Fork of Moose River, 1; Lone Butte, 2; Stuie, Bella Coola District, 7; Rainbow Mountains, Bella Coola District, 11).

Genus *BONASA* Stephens¹

Bonasa Stephens, in Shaw, Gen. Zool., 9, (2), p. 298, 1819—type, by subs. desig. (A. O. U. Committee, 1886), *Tetrao umbellus* Linnaeus.

Hylobrontes Stone, Auk, 24, p. 198, 1907—type, by orig. desig., *Tetrao umbellus* Linnaeus. New name to replace *Bonasa* Stephens, thought to apply to *Tetrao cupido* Linnaeus under the "first species" rule; cf. A. O. U. Check List, ed. 4, pp. 81–82, 1931.

**Bonasa umbellus togata* (Linnaeus).² CANADIAN RUFFED GROUSE.

Tetrao togatus Linnaeus, Syst. Nat., ed. 12, 1, p. 275, 1766—based on "La grosse Gélinote de Canada" Brisson, Orn., 1, p. 207, pl. 21, fig. 1; Canada, i.e., the region between Montreal and Quebec.

¹ Since this volume has gone to press W. E. Clyde Todd has described in the Auk for July, 1940, the following new races of Ruffed Grouse:

Bonasa umbellus monticola (p. 392).—Two and one-half miles east of Cheat Bridge, Randolph County, West Virginia, alt. 4,000 feet (type in collection of Karl W. Haller).

Bonasa umbellus medianus (p. 394).—Excelsior, Minnesota (type in the Carnegie Museum, Pittsburgh, Pennsylvania).

Bonasa umbellus canescens (p. 395).—Abitibi River, lat. 50° 53' N., northern Ontario (type in the Carnegie Museum, Pittsburgh, Pennsylvania).

² *Bonasa umbellus togata* (Linnaeus): Differs from *B. u. umbellus* by having in general a darker and more grayish (less brownish) appearance. On the upper parts the dark brown markings are more conspicuous, and on the under side the brown barrings on the breast and flanks are darker and in general broader and more heavily edged with darker brown. The blackish bars on the tail are wider and closer together.

Additional material examined.—Ontario: Arden, Muskoka, 3.

Bonasa umbellus (not *Tetrao umbellus* Linnaeus) Elliot, Mon. Tetr., pl. 1, text unpagued, 1865—part; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part; idem, Handb. Game-Bds., 1, p. 71, 1896—part (monog.).

Bonasa umbellus togata Dwight, Auk, 17, p. 145, 1900—part (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 166, 1932 (life history); Peters, Bds. World, 2, p. 39, 1934 (range).

Range.—Northern Quebec and northern Ontario south and west to Maine, New Hampshire, northern New York, central Michigan, northern Wisconsin and northern Minnesota.

Field Museum Collection.—6: Quebec (Levis, 1); Michigan (Diana, 2); Wisconsin (Solon Springs, 1; Grandview, 1; unspecified, 1).

Conover Collection.—35: Quebec (Ste. Louise, 3; Atalante, 1); Maine (Aroostook County, 1; Penobscot County, 2); Michigan (Sault Ste. Marie, 2; Antrim County, 3); Ontario (Rossport, 6; Coppermine Point, 7; Lake Nipigon, 3; Oscar, 3); Wisconsin (Drummond, 3); Minnesota (Grand Marais, 1).

****Bonasa umbellus thayeri* Bangs.¹ NOVA SCOTIAN RUFFED GROUSE.**

Bonasa umbellus thayeri Bangs, Auk, 29, p. 378, 1912—Digby, Nova Scotia (type in Bangs Collection, Museum of Comparative Zoology, Cambridge, Mass.); idem, Bull. Mus. Comp. Zool., 70, p. 156, 1930 (descr. type); Bent, Bull. U. S. Nat. Mus., 162, p. 177, 1932 (life history); Peters, Bds. World, 2, p. 40, 1934 (range).

Bonasa umbellus (not *Tetrao umbellus* Linnaeus) Elliot, Mon. Tetr., pl. 1, text unpagued, 1865—part; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part; idem, Handb. Game-Bds., 1, p. 71, 1896—part (monog.).

Bonasa umbellus togata (not *Tetrao togatus* Linnaeus) Dwight, Auk, 17, p. 145, 1900—part (molt).

Range.—Nova Scotia peninsula and eastern New Brunswick.

Field Museum Collection.—2: Nova Scotia (Halifax, 1); New Brunswick (St. Stephens, 1).

****Bonasa umbellus umbellus* (Linnaeus). EASTERN RUFFED GROUSE.**

Tetrao umbellus Linnaeus, Syst. Nat., ed. 12, 1, p. 275, 1766—based on "The Ruffed Heath-cock or Grouse" Edwards, Glean. Nat. Hist., 1, p. 79, pl. 248; [eastern] Pennsylvania.

Tetrao tympanus Bartram, Trav. Florida, p. 288, 1792—Pennsylvania.

¹*Bonasa umbellus thayeri* Bangs: This is a very local race restricted to the Nova Scotia peninsula and probably eastern New Brunswick. It is closest to *B. u. togata*, but the color of the upper parts gives the general appearance of being darker, less grayish, but more dusky, in this respect tending toward typical *B. u. umbellus*. The under parts are apt to be more heavily banded with dusky.

Additional material examined.—Nova Scotia: Digby, Dartmouth, 6.

Bonasa umbellus Elliot, Mon. Tetr., pl. 1, text unpagcd, 1865—part; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part; idem, Handb. Game-Bds., 1, p. 71, 1896—part; Dwight, Auk, 17, p. 145, 1900 (molt); Tuttle, Auk, 36, p. 325, 1919 (drumming); Gross, Auk, 42, p. 423, 1925 (disease).

Bonasa jobsii Jaycox, Cornell Era, Dec. 8, 1871, and Jan. 19, 1872—vicinity of Ithaca, New York(?).

Bonasa umbellus umbellus Bent, Bull. U. S. Nat. Mus., 162, p. 141, 1932 (life history); Towers, Auk, 51, p. 516, 1934 (plumage); Peters, Bds. World, 2, p. 40, 1934 (range).

Range.—Massachusetts, central New York, southern Ontario, southern Michigan, central Wisconsin, and central Minnesota south to northern North Carolina, Tennessee, northern Arkansas, and eastern Kansas, in the mountains to northern Georgia.¹

Field Museum Collection.—14: Massachusetts (Concord, 1; Wakefield, 1; Dedham, 1); Connecticut (East Hartford, 2); New York (Manorville, 2; Dryden, 2; Auburn, 1); Ontario (Toronto, 2); Wisconsin (Beaver Dam, 1); Illinois (Warsaw, 1).

Conover Collection.—4: Massachusetts (Mashpee, 2); Connecticut (Plainfield, 1); Michigan (Waterloo, 1).²

****Bonasa umbellus umbelloides* (Douglas).³ GRAY RUFFED GROUSE.**

Tetrao umbelloides Douglas, Trans. Linn. Soc. Lond., 16, (1), p. 148 (in text), 1829—valleys of the Rocky Mountains, lat. 54° N., and near the sources of the Columbia east of the Coast and Cascade ranges (type apparently lost).

Bonasa umbelloides Elliot, Mon. Tetr., pl. 2, text unpagcd, 1865—part.

Bonasa umbellus (not *Tetrao umbellus* Linnaeus) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part; idem, Handb. Game-Bds., 1, p. 71, 1896—part (monog.).

¹ Wetmore (Proc. U. S. Nat. Mus., 84, p. 407, 1937) refers the population of the southeastern United States to *B. u. togata*.

² *Additional material examined.*—Pennsylvania: Bryn Mawr, Moscow, Tioga County, Lycoming, Driftwood, Clinton, McKean, and Cameron counties, 14.—Tennessee: Mount Leconte, 1.—North Carolina: Weaverville, 2.—Indiana: Rose Lawn, 1.—Illinois: Evanston, 1; Kane County, 1.—Michigan: Ann Arbor, Jackson and Washtenaw counties, Kalamazoo, Darry, Livingston, and Oakland counties, 12.—Ontario: St. Clair Flats, Niagara Falls, Liewry, Norfolk County, Middlesex, Brant, Wentworth, York, and Semcoe counties, 15.

³ *Bonasa umbellus umbelloides* (Douglas): Differs from *B. u. umbellus* and *B. u. togata* in being lighter (grayer). Most nearly resembles *togata*, but the darker markings are less numerous and the dark barrings on the tail are not so wide nor so closely spaced.

Additional material examined.—British Columbia: Similkameen River, Okanagan Landing, Okanagan, Vernon, Coldstream, Lumby, Mabel Lake, Cottonwood, Willow River, Cariboo, Fort St. James, 19.—Washington: Danville, Curlew, Blue Mountains, Calispel Lake, Sullivan Lake, Tunk Mountains, Oroville, Mazama, Gifford, Colville, Loomis, Entiat, Mount Stewart, 15.

Bonasa umbellus umbelloides Dwight, Auk, 17, p. 145, 1900—part (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 171, 1932 (life history); Peters, Bds. World, 2, p. 39, 1934 (range).

Range.—Central Manitoba, southern Saskatchewan, Alberta, north-central British Columbia (east of the Cascade Range), south to South Dakota, northern Colorado, northern Utah, and eastern Oregon.

Field Museum Collection.—13: Manitoba (Carman, 2); Saskatchewan (Prince Albert, 1); Alberta (Edmonton, 7); British Columbia (Kootenai Range, 2); Dakota (unspecified, 1).

Conover Collection.—20: Saskatchewan (Buffalo Lake, 1); Alberta (Edmonton, 2; Big Hay Lake, 2; Fawcett, 1); British Columbia (Hagensborg, Bella Coola District, 2); North Dakota (Grafton, 4); Utah (Brigham, 6; Middle Fork Canyon, 2).

****Bonasa umbellus yukonensis* Grinnell.¹ YUKON RUFFED GROUSE.**

Bonasa umbellus yukonensis Grinnell, Condor, 18, p. 166, 1916—Forty-mile, Yukon Territory, Yukon River near Alaskan boundary (type in Museum of Vertebrate Zoology, Berkeley, California); Bent, Bull. U. S. Nat. Mus., 162, p. 177, 1932 (life history); Peters, Bds. World, 2, p. 39, 1934 (range).

Bonasa umbelloides (not *Tetrao umbelloides* Douglas) Elliot, Mon. Tetr., pl. 2, text unpaged, 1865—part.

Bonasa umbellus (not *Tetrao umbellus* Linnaeus) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part; idem, Handb. Game-Bds., 1, p. 71, 1896—part (monog.).

Bonasa umbellus umbelloides Dwight, Auk, 17, p. 145, 1900—part (molt).

Range.—Southern Mackenzie and interior of Yukon Territory and Alaska, south to northwestern Saskatchewan, northern Alberta, and northern British Columbia.

Conover Collection.—4: Yukon Territory (Winter Crossing, Teslin River, 2; Lake La Barge, 1); Alaska (Russian Mission, 1).

****Bonasa umbellus brunnescens* Conover.² VANCOUVER ISLAND RUFFED GROUSE.**

Bonasa umbellus brunnescens Conover, Condor, 37, p. 204, July 15, 1935—Comox, Comox District, Vancouver Island (type in Conover Collection, Field Museum of Natural History).

¹*Bonasa umbellus yukonensis* Grinnell: Palest and grayest of all the races of *Bonasa umbellus*. Nearest to *B. u. umbelloides*, but grayer (more ashy), the dark markings not so numerous, and the pattern much finer.

²*Bonasa umbellus brunnescens* Conover: In both the red and the gray phases differs from *B. u. sabini* by much browner (less reddish) upper parts except the tail. In the red phase, *brunnescens* has the tail dull ochraceous umber instead of

Bonasa sabinei (not *Tetrao sabini* Douglas) Elliot, Mon. Tetr., pl. 3, text unpagcd, 1865—part, Vancouver Island.

Bonasa umbellus (not *Tetrao umbellus* Linnaeus) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part, Vancouver Island; idem, Handb. Game-Bds., 1, p. 71, 1896—part (monog.).

Bonasa umbellus sabini Dwight, Auk, 17, p. 145, 1900—part (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 174, 1932—part (life history); Peters, Bds. World, 2, p. 39, 1934—part, Vancouver Island.

Range.—Vancouver Island and small islands adjacent.

Conover Collection.—9: Vancouver Island (Comox, 9).

****Bonasa umbellus sabini* (Douglas).¹ SABINE'S RUFFED GROUSE.**

Tetrao sabini Douglas, Trans. Linn. Soc. Lond., 16, (1), p. 137, 1829—"coast of Northwest America, between the parallels of 40° and 49° from Cape Mendocino on the south, to the Straits of Juan de Fuca, Quadra, and Vancouver's Island on the north" = vicinity of Vancouver, Washington (cf. Conover, Condor, 37, p. 204, 1935).

Bonasa sabinei Elliot, Mon. Tetr., pl. 3, text unpagcd, 1865—part.

Bonasa umbellus (not *Tetrao umbellus* Linnaeus) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 85, 1893—part; idem, Handb. Game-Bds., 1, p. 71, 1896—part (monog.).

Bonasa umbellus sabini Dwight, Auk, 17, p. 145, 1900—part (molt); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 552, 1918—California (habits); Bent, Bull. U. S. Nat. Mus., 162, p. 174, 1932—part (life history); Peters, Bds. World, 2, p. 39, 1934 (range—except Vancouver Island).

Range.—Pacific Coast region of North America (west of the Cascade Range) from southern British Columbia south to Humboldt County, California.

Field Museum Collection.—7: Washington (Clallam Bay, 1; unspecified, 1); Oregon (Logan, 3; Tillamook, 1; unspecified, 1).

ferruginous as in *sabini*. In the gray phase, the tail of *brunescens* is gray with no reddish coloration and lacks the double cross-barring of *sabini*.

Differs from *B. u. umbelloides* and *B. u. yukonensis* in much darker (brown) upper surface and much more buffy and more heavily barred (with brown) under surface.

Additional material examined.—Saturna Island, 3.

¹*Bonasa umbellus sabini* (Douglas): Differs from all other races of *B. umbellus* in having the upper parts of a rich rufescent color. In this race the gray phase seems to be almost unknown except along the border of its range (northern Washington, southern British Columbia, and the eastern Cascades) where it intergrades with *B. u. umbelloides*.

Additional material examined.—British Columbia: Howe Sound, New Westminster, Lund, Vancouver, Port Simpson, Agassiz, Sumas, Chilliwack, 16.—Washington: White Salmon, Shoalwater Bay, Mount Rainier, Cedarville, Nisqually River, Darrington, Olympic Mountains, Puget Sound, Rockport, Bellingham, Whatcom County, Whidby Island, Neah Bay, 21.—Oregon: Cascade Mountains, Fort Steilacoom, Parkdale, Willamette Valley, Portland, Beaverton, 11.

Conover Collection.—12: British Columbia (upper Pitt River, 1); Washington (Glacier, 1; Kirkland, 1); Oregon (Blaine, 5; Scio, 4).

Genus PEDIOECETES Baird

Pedioecetes Baird, Rep. Expl. and Surv. R. R. Pac., 9, pp. xxi, xliv, 1858—type, by monotypy, *Pedioecetes phasianellus* Linnaeus=*Tetrao phasianellus* Linnaeus.

Pediocaetes Baird, l.c., pp. 619, 625—same type.

**Pedioecetes phasianellus phasianellus* (Linnaeus). NORTHERN SHARP-TAILED GROUSE.

Tetrao phasianellus Linnaeus, Syst. Nat., ed. 10, 1, p. 160, 1758—Canada=Hudson Bay, ex Edwards, Nat. Hist. Bds., 3, p. 117=probably York Factory (cf. Snyder, Univ. Toronto Studies, Biol. Ser., 40, (2), p. 38, 1935).

Pediaecaetes phasianellus Elliot, Mon. Tetr., pl. 15, text unpagged, 1865.

Pediocaetes phasianellus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 82, 1893.

Pedioecetes phasianellus Ogilvie-Grant, Handb. Game-Bds., 1, p. 68, 1896 (monog.); Dwight, Auk, 17, p. 164, 1900 (molt).

Pedioecetes phasianellus phasianellus Bent, Bull. U. S. Nat. Mus., 162, p. 285, 1932 (life history); Peters, Bds. World, 2, p. 40, 1934 (range); Snyder, Univ. Toronto Studies, Biol. Ser., 40, (1), p. 7, 1935 (migr.); (2), p. 43, 1935 (disc.); idem, Occ. Papers, Roy. Ont. Mus. Zool., 2, p. 3, 1935 (disc.).

Range.—From central-western Quebec (Ungava) and northeastern Manitoba south to southern Ontario and Lake Superior.

Conover Collection.—7: Ontario (Moose Factory, 2; Oscar, 5).¹

**Pedioecetes phasianellus campestris* Ridgway.² PRAIRIE SHARP-TAILED GROUSE.

Pedioecetes phasianellus campestris Ridgway, Proc. Biol. Soc. Wash., 2, p. 93, April 10, 1884—Illinois and Rosebud Creek, Montana (type in U. S. National Museum examined); Dwight, Auk, 17, p. 164, 1900 (molt);

¹ *Additional material examined*.—Ontario: Moose River, 1; James Bay, Partidge Creek, 1; James Bay, Fort George, 2.

² *Pedioecetes phasianellus campestris* Ridgway: Palest and most ochraceous of all the races. General color of upper parts ochraceous buff, predominating over the blackish markings. Compared with *P. p. phasianellus*, under side much whiter on lower breast and abdomen, with dark markings on chest and flanks paler (fresh fall plumage).

Additional material examined.—Wisconsin: Port Wing, 10; Solon Springs, 1.—Illinois: Andalusia, 1; unspecified, 1.—North Dakota: Grinnell, 1; Tappen, 1; Lac aux Morts, 2; Fish Lake, 3; Goodall, 3; Valley City, 2; Elbowoods, 3.—South Dakota: Elk Mountain, 1; Fort Pierre, 1; Spearfish, 1.—Montana: Rosebud Creek, 1; Clydepark, 1; Fort Custer, 3.—Wyoming: Crook County, 1.—Colorado: Castle Rock, 7; Sedalia, 1; Elbert, 1; unspecified, 1.

Rowan, Auk, 43, p. 333, pl., 1926 (hybrid with *T. americanus*); Bent, Bull. U. S. Nat. Mus., 162, p. 291, 1932 (life history); Peters, Bds. World, 2, p. 41, 1934 (range); Snyder, Univ. Toronto Studies, Biol. Ser., 40, (2), p. 55, 1935 (disc.); idem, Occ. Papers, Roy. Ont. Mus. Zool., 2, p. 5, 1935 (disc.).

Pediaeaeles columbianus (not *Phasianus columbianus* Ord) Elliot, Mon. Tetr., pl. 14, text unpagged, 1865—part, east of Rocky Mountains.

Pediocaeles columbianus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 83, 1893—part, except west of the Rockies and Alaska.

Pediocetes columbianus Ogilvie-Grant, Handb. Game-Bds., 1, p. 69, 1896—part, except west of Rockies and Alaska.

Pediocetes phasianellus jamesi Lincoln,¹ Proc. Biol. Soc. Wash., 30, p. 84, 1917—Castle Rock, Douglas County, Colorado (type in Colorado Museum of Natural History examined); Peters, Bds. World, 2, p. 40, 1934 (range); Snyder, Univ. Toronto Studies, Biol. Ser., 40, (2), p. 56, 1935 (disc.); idem, Occ. Papers, Roy. Ont. Mus. Zool., 2, p. 6, 1935 (disc.).

Pediocetes phasianellus campisylvicola Snyder, Occ. Papers, Roy. Ont. Mus. Zool., 2, p. 4, 1935—St. Charles (near Winnipeg), Manitoba (type in Royal Ontario Museum of Zoology, Toronto); idem, Auk, 56, p. 184 (in text), 1939 (= *P. p. campestris*).

Range.—From central Manitoba and central Alberta south to northwestern Wisconsin (formerly to northern Illinois), Minnesota, Kansas, and eastern Colorado.²

Field Museum Collection.—15: Manitoba (Giroux, 3; Winnipeg, 1); Saskatchewan (Prince Albert, 1); Alberta (Edmonton, 2; Red Deer, 2); Minnesota (Madison, 1); North Dakota (Dickinson, 3; Bismarck, 1); South Dakota (Pine Ridge Agency, 1).

Conover Collection.—32: Alberta (Edmonton, 2; Tofield, 2; Beaverhill Lake, 1); Saskatchewan (Imperial, 7); North Dakota (Grafton, 2; Brantford, 2); South Dakota (Peever, 2); Nebraska

¹The series of five birds (including the type) used in the naming of *jamesi* has been examined. This series does seem lighter than birds from Illinois, but unfortunately all of them were taken in February and March and are somewhat faded. Two other fall specimens (October and November) taken within thirty miles of the type locality (Sedalia and Elbert) prove to be similar to *campestris*. It should be emphasized here, that birds in fresh fall plumage are the only ones of any value for taxonomic purposes.

²There is great variation in the birds inhabiting the range of *campestris* as given. The palest specimens, which are light buffy, come from the southern edge of its range in north-central Nebraska. Extending west, north, and east from this area the birds become progressively darker. Unfortunately it is to these darker, or intermediate birds, on the eastern, western, and northern boundaries of the prairie form, that the three names *campestris*, *jamesi*, and *campisylvicola* have been given. Fall specimens from near the type localities of all three of these proposed races have been examined, and the conclusion has been reached that to all practical purposes they are one and the same bird. The paler bird from Nebraska has not been thought worthy of a name, as its range seems very limited. In South Dakota, immediately to the north, both light and dark specimens have been taken from the same locality.

(Wood Lake, 10); Montana (Stillwater County, 1); Wyoming (Niobrara, 2; Platte County, 1).

****Pedioecetes phasianellus kennicottii* Suckley.¹ NORTHWESTERN SHARP-TAILED GROUSE.**

Pedioecetes kennicottii Suckley, Proc. Acad. Nat. Sci. Phila., 14, p. 362, 1861 -- Great Slave Lake, Northwest Territories (type formerly in U. S. National Museum, now lost).

Pedioecetes phasianellus kennicottii Du Mont, Auk, 50, p. 432, 1933 (name revived); Snyder, Univ. Toronto Studies, Biol. Ser., 40, (2), p. 48, 1935 (descr.); idem, Occ. Papers, Roy. Ont. Mus. Zool., 2, p. 2, 1935 (descr. and range).

Range.—From the Mackenzie region and central Alaska south through the Yukon Territory to northern Alberta and British Columbia.

Conover Collection.—5: Alaska (Diamond, 2; Teklanika River, 2); Alberta (Fort Smith, 1).

****Pedioecetes phasianellus columbianus* (Ord).² COLUMBIAN SHARP-TAILED GROUSE.**

Phasianus columbianus Ord, in Guthrie's Geogr., 2nd Amer. ed., 2, p. 317, 1815—Great Plains of the Columbia River, based on the "grouse or prairie hen" of Lewis and Clark Exped., 2, p. 180.

Tetrao urophasianellus Douglas, Trans. Linn. Soc. Lond., 16, (1), p. 136, 1829—Columbia River and northern California (type lost).

Pediaecaetes columbianus Elliot, Mon. Tetr., pl. 14, text unpagged, 1865—part, west of the Rocky Mountains.

Pedioecetes columbianus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 83, 1893 -- part, west of Rockies, only.

Pedioecetes columbianus Ogilvie-Grant, Handb. Game-Bds., 1, p. 69, 1896—part, west of Rockies, only.

Pedioecetes phasianellus columbianus Dwight, Auk, 17, p. 164, 1900 (molt); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 558, 1918—California (habits); F. M. Bailey, Bds. New Mexico, p. 209, 1928—Johnson Mesa, east of Raton; Bent, Bull. U. S. Nat. Mus., 162, p. 288, 1932 (life history); Peters, Bds. World, 2, p. 40, 1934 (range); Snyder, Univ. Toronto Studies,

¹ *Pedioecetes phasianellus kennicottii* Suckley: A dark bird like typical *phasianellus*, but with the black markings on the upper parts predominating, giving a darker appearance; dark V-shaped markings on the under sides much more restricted; lower breast and abdomen immaculate.

Additional material examined.—Alaska: Fairbanks, 4; Sperry, 1.

² *Pedioecetes phasianellus columbianus* (Ord): Smallest and grayest of all the races. Darker (more brownish) on the upper parts than *P. ph. campestris*, but lighter (grayer) than *P. ph. phasianellus*. Dark markings of the breast and flanks more extensive and blacker, resembling typical *phasianellus*.

Biol. Ser., 40, (2), p. 53, 1935 (disc.); idem, Occ. Papers, Roy. Ont. Mus. Zool., 2, p. 2, 1935 (disc.).

Range.—Interior lowlands west of the Continental Divide from northern British Columbia south to Utah, western Colorado, northern New Mexico, and northern California.

Field Museum Collection.—1: Montana (Flathead County, 1).

Conover Collection.—9: British Columbia (Lone Butte, 2); Utah (Tremonton, 5); Colorado (Pinnacle, 2).

Genus **TYMPANUCHUS** Gloger

Tympanuchus Gloger, Hand- und Hilfsb. Naturg., p. 396, "1842"=1841—type, by monotypy, *Tetrao cupido* Linnaeus.

Cupidonia Reichenbach, Av. Syst. Nat., p. xxix, after Oct. 1, 1852—type, by monotypy, *Cupidonia americana* Reichenbach=*Tetrao cupido* Linnaeus.

***Tympanuchus cupido cupido** (Linnaeus). HEATH HEN.

Tetrao cupido Linnaeus, Syst. Nat., ed. 10, 1, p. 160, 1758—based on "Cocq de bois d'Amérique" Catesby, Nat. Hist. Carolina, 2, App., p. 1, pl. 1; "Virginia"=Pennsylvania.

Cupidonia americana Reichenbach, Av. Syst. Nat., p. xxix, after Oct. 1, 1852—based on "Attagen americana" Brisson (Orn., 1, p. 212), which in its turn rests exclusively on Catesby's "Cocq de bois d'Amérique."

Cupidonia cupido Elliot, Mon. Tetr., pl. 16, 1865 (text unpagged)—part; Brewster, Auk, 2, p. 80, 1885 (descr. and diff. with *C. pinnata*).

Cupidonia cupido brewsteri Coues, Key N. Amer. Bds., App., p. 884, 1887—Martha's Vineyard, Mass. (based on *Cupidonia cupido* Brewster, Auk, 2, p. 80, 1885).

Tympanuchus cupido Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 77, 1893; idem, Handb. Game-Bds., 1, p. 65, 1896 (monog.); Dwight, Auk, 17, p. 163, 1900 (molt); Field, 42nd Ann. Rep. Mass. Comm. Fisheries and Game, 1907 (status).

Tympanuchus cupido cupido Gross, Mem. Bost. Soc. Nat. Hist., 6, No. 4, 1928 (monog.); Bent, Bull. U. S. Nat. Mus., 162, p. 264, 1932 (life history); Canad. Field Nat., 46, p. 207, 1932 (total ext.); Peters, Bds. World, 2, p. 41, 1934 (range).

Range.—Extinct; formerly occurred from southern New England to the Potomac River. From 1830 to about 1932 confined to the island of Martha's Vineyard.

Field Museum Collection.—8: Massachusetts (Martha's Vineyard, 8).

Conover Collection.—6: Massachusetts (Martha's Vineyard, 5; unspecified, 1).

****Tympanuchus cupido pinnatus* (Brewster). GREATER PRAIRIE HEN.**

Cupidonia pinnata Brewster, Auk, 2, p. 82, 1885—Vermillion, South Dakota (cotypes now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 155, 1930).

Cupidonia cupido (not *Tetrao cupido* Linnaeus) Elliot, Mon. Tetr., pl. 16, 1865 (text unpagged)—part; Brewster, Bull. Nutt. Orn. Cl., 2, p. 66, 1877 (hybrid with *Pedioecetes phasianellus*).

Tympanuchus americanus (not *Cupidonia americana* Reichenbach) Ridgway, Auk, 3, p. 132, 1886 (disc. nomencl.); Brewster, Auk, 12, p. 99, pl., 1895 (red variety); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 78, 1893; idem, Handb. Game-Bds., 1, p. 62, 1896 (monog.); Dwight, Auk, 17, p. 163, 1900 (molt); Rowan, Auk, 43, p. 333, pl., 1926 (hybrid with *Pedioecetes phasianellus*).

Tympanuchus cupido americanus Breckenridge, Auk, 46, p. 540, 1929 (display); Gross, Prog. Report Wisc. Prairie Ch. Invest., 1930—Wisconsin (life history); Bent, Bull. U. S. Nat. Mus., 162, p. 242, 1932 (life history).

Tympanuchus cupido pinnata Bangs, Bull. Mus. Comp. Zool., 70, p. 155, 1930 (disc. of type of *Cupidonia pinnata* Brewster).

Tympanuchus cupido pinnatus Peters, Bds. World, 2, p. 41, 1934 (range).

Range.—From about Edmonton,¹ central Alberta, southern Saskatchewan and southern Manitoba, south through northern Minnesota, the northern peninsula of Michigan to south central Indiana, Arkansas, northeastern Texas, and eastern Colorado.

Field Museum Collection.—17: Manitoba (Portage Plains, 1; Shoal Lake, 1; Carman, 2); Saskatchewan (Quill Lake, 1); North Dakota (Grand Harbor, 2); South Dakota (Harrison, 2); Michigan (Mackinaw County, 2); Minnesota (Madison, 2); Wisconsin (Beaver Dam, 2; Jefferson County, 1; Wausau, 1).

Conover Collection.—22: Alberta (Chauvin, 1; Sullivan Lake, 1); North Dakota (Grafton, 6); South Dakota (Eden, 4); Nebraska (Wood Lake, 10).

****Tympanuchus cupido attwateri* Bendire.² ATTWATER'S PRAIRIE HEN.**

Tympanuchus attwateri Bendire, Forest and Stream, 40, p. 425, 1893—Refugio and Aransas counties, Texas (type in U. S. National Museum).

¹ Casual as far north as Lac la Biche, Alberta, according to Professor William Rowan (in litt.).

² *Tympanuchus cupido attwateri* Bendire: Differs from *T. c. americanus* in being smaller, less brownish above, and with more pronounced chestnut on the foreneck. Can always be told from all other races of *T. cupido* and *T. pallidicinctus* by having the tarsus feathered in front for not more than two-thirds of its length, never to the base of the toes.

Tympanuchus americanus attwateri Bendire, Auk, 11, p. 130, 1894 (range, fuller descr. adult and pullus); Dwight, Auk, 17, p. 163, 1900 (molt).

Tympanuchus cupido attwateri Bent, Bull. U. S. Nat. Mus., 162, p. 263, 1932 (life history); Peters, Bds. World, 2, p. 41, 1934 (range).

Range.—Coast region of Texas and southwestern Louisiana.

Field Museum Collection.—1: Texas (Jefferson County, 1).

****Tympanuchus pallidicinctus* (Ridgway). LESSER PRAIRIE HEN.**

Cupidonia cupido var. *pallidicincta* Ridgway, Bull. Essex Inst., 5, p. 199, 1873—prairies of Texas near lat. 32° N. (type in U. S. National Museum).

Tympanuchus pallidicinctus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 80, 1893; idem, Handb. Game-Bds., 1, p. 65, 1896 (monog.); Dwight, Auk, 17, p. 163, 1900 (molt); Bent, Bull. U. S. Nat. Mus., 162, p. 280, 1932 (life history); Peters, Bds. World, 2, p. 41, 1934 (range).

Range.—Great Plains, from Kansas to New Mexico and west-central Texas.

Field Museum Collection.—5: Texas, 1; locality unspecified, 4.

Conover Collection.—4: New Mexico (Bluit, 4).

Genus CENTROCERCUS Swainson

Centrocercus Swainson, in Swainson and Richardson, Fauna Bor.-Am., 2, pp. 358, 496, Feb., 1832—type, by orig. desig., *Tetrao urophasianus* Bonaparte.

****Centrocercus urophasianus* (Bonaparte). SAGE GROUSE.**

Tetrao urophasianus Bonaparte, Zool. Journ., 3, No. 10, p. 213, April-Sept., 1827—"Northwestern countries beyond the Mississippi, especially on the Missouri"—North Dakota (type in Leadbeater Collection, probably lost).

Centrocercus urophasianus Elliot, Mon. Tetr., pl. 13, 1865 (text unpagged); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 81, 1893; idem, Handb. Game-Bds., 1, p. 66, pl. 6, 1896 (monog.); Dwight, Auk, 17, p. 165, 1900 (molt); Bond, Auk, 17, p. 325, pl., 1900 (nupt. perf.); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 564, 1918—California (habits); Brooks, Condor, 32, p. 205, 1930 (plumage); Bent, Bull. U. S. Nat. Mus., 162, p. 300, 1932 (life history); Peters, Bds. World, 2, p. 42, 1934 (range).

Range.—Sagebrush plains of western North America from southern British Columbia, southern Saskatchewan, and northwestern North Dakota, south to middle-eastern California, northwestern New Mexico, and northwestern Nebraska.

Field Museum Collection.—6: Colorado (Maybell, 1; Gunnison, 1; Cross Mountain, 1); Wyoming (Albany County, 1; Cody, 2).

Conover Collection.—24: Wyoming (Du Bois, 6; Laramie, 1; Point of Rocks, 1); Utah (Tremonton, 13; 15 miles east of Brigham, 3).

Family PHASIANIDAE. Partridges, Quails, and Pheasants

Genus **DENDRORTYX** Gould

Dendrortyx Gould, Monogr. Odontoph., 1, pl. [3] and text, 1844 (=pl. 20 of bound volume)—type, by monotypy, *Ortyx macroura* Jardine and Selby.

Dendrortyx barbatus Gould. BEARDED PARTRIDGE.

Dendrortyx barbatus ("Lichtenstein" MS.) Gould, Monogr. Odontoph., 2, pl. [2] and text, 1846 (=pl. 22 of bound volume)—Jalapa, Vera Cruz (type in Berlin Museum); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 393, 1893—Jalapa, Vera Cruz; idem, Handb. Game-Bds., 2, p. 113, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 289, 1903—Jalapa, Orizaba; Peters, Bds. World, 2, p. 42, 1934 (range).

Range.—Mountain forests of the State of Vera Cruz, Mexico.¹

Dendrortyx macroura macroura (Jardine and Selby). EASTERN LONG-TAILED PARTRIDGE.

Ortyx macroura Jardine and Selby, Ill. Orn., 1, text to pls. 38 (in "*Ortyx synopsis specierum*") and 49 and text, 1828—Mexico [=mountains about valley of Mexico; fide Nelson, Auk, 14, p. 44, 1897] (present location of type unknown).

Tetrao marmorata La Llave, Reg. Trim., 1, p. 144, 1831.²

Dendrortyx macrourus Gould, Monogr. Odontoph., pl. 20, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 392, 1893 (descr. only).

Dendrortyx macrurus Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 287, 1903—part, Vera Cruz.

Dendrortyx macroura macroura Peters, Bds. World, 2, p. 42, 1934 (range).

Range.—Mountains about the Valley of Mexico and highlands in the State of Vera Cruz, Mexico.³

Dendrortyx macroura griseipectus Nelson.⁴ GRAY-BREASTED LONG-TAILED PARTRIDGE.

¹ *Material examined*.—Vera Cruz: Jico, 10.

² Not seen by the authors.

³ *Material examined*.—Mexico: Salazar, Sierra de la Cruz, alt. 10,000 feet, 2; Amecameca, 1; Vera Cruz, Mount Orizaba, 1.

⁴ *Dendrortyx macroura griseipectus* Nelson: Similar to typical *macroura* but rufous shaft streaks of the breast feathers confined to the basal half or two-thirds of each feather and almost entirely concealed, giving a nearly uniform dingy gray appearance to the breast; upper parts slightly more olivaceous.

Although San Sebastian, Jalisco, is widely separated from Huitzilac, Morelos, and the range of *D. m. striatus* in Michoacan would seem to intervene somewhat, the Jalisco specimens are so nearly like *griseipectus* from Morelos and so different from *striatus* that no other way is left than to place them in the same race.

Future specimens from other localities may prove that the range of *griseipectus* extends along the edge of the tableland (east and north of the range of *striatus*) between San Sebastián, Jalisco and Huitzilac, Morelos.

Material examined.—Morelos: Huitzilac, 2.—Jalisco: San Sebastián, 3.

Dendrortyx macrourus griseipectus Nelson, Auk, 14, p. 44, 1897—Huitzilac, Morelos, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Dendrortyx macrurus (not *Ortyx macroura* Jardine and Selby) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 287, 1903—part, Morelos.

Dendrortyx macroura griseipectus Peters, Bds. World, 2, p. 42, 1934 (range).

Range.—Known only from two widely separated localities, Huitzilac, Morelos, and San Sebastián (northwest of Mascota), Jalisco, Mexico.

***Dendrortyx macroura striatus* Nelson.¹ GUERRERAN LONG-TAILED PARTRIDGE.**

Dendrortyx macrourus striatus Nelson, Auk, 14, p. 44, 1897—Chilpancingo, Guerrero, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Dendrortyx macrourus (not *Ortyx macroura* Jardine and Selby) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 392, 1893—part, Guerrero, Colima.

Dendrortyx macrurus Ogilvie-Grant, Handb. Game-Bds., 2, p. 112, 1897—part, Guerrero, Colima.

Dendrortyx macrourus dilutus Nelson, Auk, 17, p. 254, 1900—Patzcuaro, Michoacan, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Dendrortyx macrurus Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 287, 1903—part, Guerrero, Michoacan.

Dendrortyx macroura dilutus Peters, Bds. World, 2, p. 42, 1934 (range).

Dendrortyx macroura striatus Peters, Bds. World, 2, p. 42, 1934 (range); Griscom, Auk, 54, p. 192, 1937—Omiteme, Guerrero (dist. char.).

Range.—Mexico in the Sierra Madre of Michoacan and the Cordillera of Guerrero above 8,000 feet.

***Dendrortyx macroura oaxacae* Nelson.² OAXACAN LONG-TAILED PARTRIDGE.**

¹ *Dendrortyx macroura striatus* Nelson: Similar to *D. m. macroura*, but has heavy rufous shaft lines on the feathers of the entire flanks; the upper parts are more olivaceous and the white markings of the back and tail are almost obsolete; crown of head blackish, lacking the rufous spots to the tips of the feathers found in typical *macroura*.

A series of nineteen specimens, including type, of *D. m. striatus* from Guerrero, and eleven specimens, including type, of *D. m. dilutus* from Michoacan show no constant difference.

Material examined.—Michoacan: Mount Tancitaro, 8; Patamban, 2; Patzcuaro, 1.—Guerrero: Omiteme, 18; Chilpancingo, 1.

² *Dendrortyx macroura oaxacae* Nelson: Top of head black as in *D. m. striatus*; white borders to the feathers on the back of the neck, present in other known races, absent; white cheek and superciliary stripes very indistinct; feathers of the chest and upper breast dark chestnut with very narrow ashy borders along sides, giving an almost uniform chestnut appearance to this area. Entire bird darker than typical *macroura*, with a suppression of the lighter markings.

Material examined.—Oaxaca: Mount Zempoaltepec, 1; Mount Totontepec, 1.

Dendrortyx oaxacae Nelson, Auk, 14, p. 43, 1897—Totontepec, Oaxaca, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Dendrortyx macrourus (not *Ortyx macroura* Jardine and Selby) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 392, 1893—part, Oaxaca.

Dendrortyx macrorus Ogilvie-Grant, Handb. Game-Bds., 2, p. 112, 1897—part, Oaxaca.

Dendrortyx macrurus Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 287, 1903—part, Oaxaca.

Dendrortyx macroura oaxacae Peters, Bds. World, 2, p. 43, 1934 (range).

Range.—Mountains of eastern Oaxaca from the Cerro San Felipe to Mount Zempoaltepec.

****Dendrortyx leucophrys leucophrys* (Gould). GUATEMALAN LONG-TAILED PARTRIDGE.**

Ortyx leucophrys Gould, Proc. Zool. Soc. Lond., 11, "1843," p. 132, pub. March, 1844—Coban, Guatemala (type in collection of Earl of Derby, now in Liverpool Museum).

Dendrortyx leucophrys Gould, Monog. Odontoph., pl. 21, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 394, 1893—part, Guatemala; idem, Handb. Game-Bds., 2, p. 114, 1897—part, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 289, 1903—part, Guatemala.

Dendrortyx leucophrys leucophrys Griscom, Bull. Amer. Mus. N. H., 64, p. 105, 1932—Sepacuite, Guatemala (habits); Peters, Bds. World, 2, p. 43, 1934 (range).

Dendrortyx leucophrys nicaraguae Miller and Griscom,¹ Amer. Mus. Nov., 183, p. 1, 1925—Jalapa, Nicaragua, alt. 4,000 feet (type in the American Museum of Natural History, New York, examined); Peters, Bds. World, 2, p. 43, 1934 (range); Griscom, Ibis, 1935, p. 549—Panajachel, Sololá, Pacific Cordillera of Guatemala (crit.); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 156, 1938—Volcan de San Miguel, Mount Cacaguatique, and Los Esesmiles, El Salvador.

Range.—Highlands of Guatemala, El Salvador, Honduras, and northwestern Nicaragua.

Field Museum Collection.—1: El Salvador (Los Esesmiles, Chalatenango, 1).

¹ The characters given for this supposed race are: smaller; generally darker; rufous centers to feathers of nape, back, and chest darker; auricular regions sooty black with a few dark chestnut shaft streaks in contrast with sides of neck, whereas *D. l. leucophrys* has auriculars rufous and dusky, uniform with sides of the neck; tail above and under tail coverts darker. A series of 15 adults (Guatemala, 2; Honduras, 8; Nicaragua, 5) has been examined. At first glance the Nicaraguan specimens appear darker, but one of the Guatemalan birds is equally dark, and the type of *nicaraguae*, which is the lightest of the series, is very little darker than the other Guatemalan specimen. Of the eight birds from Honduras, three are dark, and five are light. The other characters seem of no value.

Additional material examined.—Guatemala: Finca Sepacuite, 1; Santa Elena, 1.—Nicaragua: Jalapa, 5.

Conover Collection.—16: Honduras, Dept. Tegucigalpa (Cerro Cantoral, 2; Cantoral, 5; El Derrumbe, 2; Alto Cantoral, 2; La Flor, near Archaga, 5).

****Dendrortyx leucophrys hypospodius* Salvin.¹ COSTA RICAN LONG-TAILED PARTRIDGE.**

Dendrortyx hypospodius Salvin, Bull. Brit. Orn. Cl., 6, p. 5, 1896—"Azalias" [=Azahar] de Cartago, Costa Rica (type in British Museum [Natural History]); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 289, 1903—Costa Rica (Azahar de Cartago, Alajuéla, Estrella, La Palma de San José); Carriker, Ann. Carnegie Mus., 6, p. 385, 1910 (range in Costa Rica); Peters, Bds. World, 2, p. 43, 1934 (range).

Dendrortyx leucophrys (not *Ortyx leucophrys* Gould) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 394, 1893—Costa Rica (range only); idem, Handb. Game-Bds., 2, p. 114, 1897—Costa Rica (range only); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 289, 1903—part, Costa Rica.

Range.—Highlands of Costa Rica.

Field Museum Collection.—1: Costa Rica (Irazú, 1).

Conover Collection.—4: Costa Rica (San Joaquin de Dota, 1; San Jerónimo, Pirris, 1; Alajuéla, Zarcero, 2).

Genus **OREORTYX** Baird

Oreortyx Baird, Rep. Expl. and Surv. R. R. Pac., 9, pp. xlv, 638, 642, 1858—type, by monotypy, *Ortyx picta* Douglas.

****Oreortyx picta picta* (Douglas). PLUMED QUAIL.**

Ortyx picta Douglas, Phil. Mag., (n.s.), 5, p. 74, Jan., 1829—interior of New California=headwaters of the Umpqua River near the Calapooia Mountains, Oregon; fide Oberholser, Auk, 40, p. 82, 1923 (type lost).

Ortyx plumifera Gould, Icon. Av., Part 1, pl. [9] and text, August, 1837—California=lower Willamette Valley, Oregon, fide Oberholser, Auk, 40, p. 83, 1923 (type now in British Museum ex collection of Zoological Society of London; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 318, 1932).

Callipepla picta Gould, Monog. Odontoph., pl. 15, text unpagued, 1850.

Oreortyx pictus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 397, 1893; idem, Handb. Game-Bds., 2, p. 118, 1897.

Oreortyx pictus plumiferus Ridgway, Auk, 11, p. 195, pl. 6, 1894 (dist. char.); Dwight, Auk, 17, p. 46, 1900 (molt); Peck, Condor, 13, p. 149, 1911 (hybrid with *Lophortyx californicus*).

¹ *Dendrortyx leucophrys hypospodius* Salvin: Similar to *D. l. leucophrys*, but with the shaft streaks of the breast sooty blackish, not chestnut, and greatly reduced in width, being hardly wider than the shafts on the lower breast; on the sides the shaft streaks are also narrower and sooty, becoming tinged with chestnut on the lower flanks; appearance of bird as a whole somewhat darker. Size as in typical *leucophrys*.

Oreortyx picta plumifera Grinnell, Bryant, and Storer, Game Bds. Calif., p. 504, 1918 (range and habits in California).

Oreortyx picta picta Oberholser, Auk, 40, p. 84, 1923 (range); Bent, Bull. U. S. Nat. Mus., 162, p. 43, 1932 (life history); Peters, Bds. World, 2, p. 43, 1934 (range); van Rossem, Condor, 39, p. 22, 1937 (dist. char. and range).

Oreortyx picta eremophila van Rossem,¹ Condor, 39, p. 22, Jan. 15, 1937—Lang Spring, Mountain Spring Canyon, Argus Mountains, Inyo County, California, 6,000 feet (type in San Diego Museum of Natural History, San Diego, California).

Range.—Mountain regions from extreme western Nevada west to the west side of the Cascade Range in southern Washington and south through the Sierra Nevada and inner Coast ranges of California nearly to the Mexican line.

Field Museum Collection.—11: Oregon (Prospect, 4); California (San Bernardino County, Little Creek Canyon, 4; Butte County, Chaparral, 2; Julian, 1).

Conover Collection.—16: Washington (Snake River Canyon, 40 miles above Lewiston, Idaho, 2); California (San Diego County, San Francisquita Pass, 1; San Bernardino County, Lone Pine Canyon, 1; Little Creek Canyon, 6; Baldwin Lake, 1; Victorville, 1; Kern County, Mount Pinos, 2; Pasadena, 1; Mojave Desert, 1).²

****Oreortyx picta palmeri* Oberholser.³ MOUNTAIN QUAIL.**

Oreortyx picta palmeri Oberholser, Auk, 40, p. 84, Jan. 10, 1923—Yaquina, Oregon (type in U. S. National Museum, Biological Survey Collection, examined); Bent, Bull. U. S. Nat. Mus., 162, p. 40, 1932 (life history); Peters, Bds. World, 2, p. 43, 1934 (range); van Rossem, Condor, 39, p. 21, 1937 (dist. char. and range).

Oreortyx pictus (not *Ortyx picta* Douglas) Ridgway, Auk, 11, p. 195, pl. 6, 1894 (dist. char.); Dwight, Auk, 17, p. 46, 1900 (molt).

Oreortyx picta picta Grinnell, Bryant, and Storer, Game Bds. Calif., p. 513, 1918 (range and habits in California).

¹ This name has been recently proposed for birds from the southern part of California. As many birds from that region seem to be simply intergrades between *O. p. picta* and *O. p. confinis* it has been thought best not to recognize this race.

² *Additional material examined*.—Nevada: Silver Peak Mountains, 1; Jackson Mountain, 4.—California: San Jacinto Mountains, 3; San Bernardino Mountains, 1; Cajon Pass, 1.

³ *Oreortyx picta palmeri* Oberholser: Similar to *O. p. picta*, but upper parts "bister" instead of olive brown, this color generally extending higher on the hind neck; white stripes on edges of scapulars more strongly marked with buff or pale brown.

Additional material examined.—Washington: Cedarville, 1; San Juan Island, 1.—Oregon: Yaquina, 1.—California: Brownell, 1; Donner, 1.

Range.—Humid coastal strip of the Pacific coast from southwestern Washington south to Monterey County, California; introduced on Vancouver Island.

Field Museum Collection.—8: Oregon (Logan, 7); California (Monterey County, 1).

Conover Collection.—4: Oregon (Tillamook County, Blaine, 1; Linn County, Scio, 3).

Oreortyx picta confinis Anthony.¹ SAN PEDRO MOUNTAIN QUAIL.

Oreortyx pictus confinis Anthony, Proc. Calif. Acad. Sci., (2), 2, p. 74, Oct. 11, 1889—San Pedro Mártir Range, alt. 8,500 feet, Lower California (type in the Carnegie Museum, Pittsburgh); Dwight, Auk, 17, p. 46, 1900 (molt).

Oreortyx picta confinis Oberholser, Auk, 40, p. 84, 1923 (range); Grinnell, Univ. Calif. Pub. Zool., 32, p. 100, 1928—Lower California; Bent, Bull. U. S. Nat. Mus., 162, p. 51, 1932 (life history); Peters, Bds. World, 2, p. 43, 1934 (range); van Rossem, Condor, 39, p. 22, 1937 (review of characters and range).

Range.—Lower California in the Sierra Juárez and Sierra San Pedro Mártir.

Genus **CALLIPEPLA** Wagler

Callipepla Wagler, Isis, p. 277, 1832—type, by monotypy, *Callipepla strenua* Wagler=*Ortyx squamatus* Vigors.

***Callipepla squamata castanogastris** Brewster. CHESTNUT-BELLIED SCALED QUAIL.

Callipepla squamata castanogastris Brewster, Bull. Nutt. Orn. Cl., 8, p. 34, 1883—Rio Grande City, Texas (cotypes now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 159, 1930); Dwight, Auk, 17, p. 47, 1900 (molt); Phillips, Auk, 28, p. 74, 1911—San Fernando, Aguas Calientes, Tamaulipas; Bangs, Proc. New Engl. Zool. Cl., 4, p. 100, 1914 (dist. char. and range); Bent, Bull. U. S. Nat. Mus., 162, p. 58, 1932 (life history); Peters, Bds. World, 2, p. 44, 1934 (range).

Callipepla castaneiventer Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 396, 1893; idem, Handb. Game-Bds., 2, p. 117, 1897 (monog.).

Range.—Southern Texas from Eagle Pass and San Antonio south through Tamaulipas, Nuevo León, and eastern Coahuila, Mexico.

Field Museum Collection.—12: Texas (Laredo, 2; Crystal City, 1; Lomita Ranch, 1; La Salle County, 1; Carriza, 1; Sulphur, 1; Uvalde, 1); Coahuila (Sabinas, 4).

¹*Oreortyx picta confinis* Anthony: Like *O. p. picta*, but upper parts grayer, less brownish, being only washed with olive brown; white margins to scapulars purer white; gray of chest slightly darker.

Material examined.—Lower California: Vallecitos, 1; Santo Tomas, 3.

Conover Collection.—6: Texas (Lacoma, Hidalgo County, 2; Raymondsville, Willacy County, 3; Crystal City, Zavalla County, 1).

****Callipepla squamata pallida* Brewster.¹ ARIZONA SCALED QUAIL.**

Callipepla squamata pallida Brewster, Bull. Nutt. Orn. Cl., 6, p. 72, 1881—Rio San Pedro, Arizona, cotypes from San Pedro River [male] and Fort Bowie [female] (cotypes now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 158, 1930); Bangs, Proc. New Engl. Zool. Cl., 4, p. 100, 1914 (dist. char. and range); Bailey, Auk, 45, p. 216, 1928 (hybrid with *L. gambelii*); F. M. Bailey, Birds New Mexico, p. 215, pl. 18, 1928 (range, habits in New Mexico); Bent, Bull. U. S. Nat. Mus., 162, p. 51, 1932 (life history); Peters, Bds. World, 2, p. 44, 1934 (range).

Callipepla squamata (not *Ortyx squamatus* Vigors) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 395, 1893—part; idem, Handb. Game-Bds., 2, p. 115, 1897—part (monog.).

Range.—Western Texas, southern Colorado, and central Arizona south to northwestern Coahuila, northern Chihuahua, and northern Sonora.

Field Museum Collection.—28: Texas (Uvalde, 1; Davis Mountains, 1); Colorado (Otero County, 5); New Mexico (Deming, 11); Arizona (Huachuca Plains, 6; Huachuca Mountains, Carr Canyon, 2; Fort Grant, 1; Greaterville, 1).

Conover Collection.—6: Texas (Pecos, Reeves County, 2); Arizona (Tombstone, Cochise County, 1; Catalina Mountains, Pima County, 2; Portal, 1).

***Callipepla squamata squamata* (Vigors). MEXICAN SCALED QUAIL.**

Ortyx squamatus Vigors, Zool. Journ., 5, p. 275, 1830—Mexico (type lost, formerly in collection of Zoological Society of London).

Tetrao cristata La Llave, Reg. Trim., 1, p. 144, 1831.²

Callipepla strenua Wagler, Isis, p. 278, 1832—Mexico (type lost, formerly in Würzburg Museum).³

Callipepla squamata Gould, Monog. Odontoph., pl. 19, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 395, 1893—part; idem, Handb. Game-Bds., 2, p. 115, 1897—part (monog.); Dwight, Auk, 17, p. 47, 1900 (molt); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 290,

¹ *Callipepla squamata pallida* Brewster: Similar to *C. s. squamata* but much paler throughout; upper parts lighter, more sandy; upper breast and chest much lighter blue; abdomen more buffy, less whitish; vent and under tail coverts lighter.

² We have been unable to consult this work.

³ According to information received from Dr. A. Laubmann.

1903—Mexico (part, Sonora, Chihuahua, Durango, San Luis Potosi, Jalisco, Federal District).

Callipepla squamata squamata Miller, Bull. Amer. Mus. N. H., 22, p. 162, 1906—Rancho Baillon, Durango; Bangs, Proc. New Engl. Zool. Cl., 4, p. 99, 1914 (dist. char. and range); Peters, Bds. World, 2, p. 44, 1934 (range).

Range.—Mexico from southern Coahuila, southern Chihuahua, and southern Sonora to Mexico, Guanajuato, and Jalisco.¹

Genus **LOPHORTYX** Bonaparte

Lophortyx Bonaparte, Geogr. and Comp. List, p. 42, 1838—type, by subs. desig. (Gray, List Gen. Bds., p. 61, 1840), *Tetrao californicus* Shaw.

***Lophortyx californica californica** (Shaw). VALLEY QUAIL.

Tetrao californicus Shaw, Nat. Misc., 9, pl. 345, text unpagcd, 1798—California=Monterey (type lost, once in the British Museum); Grinnell, Condor, 33, p. 37, 1931 (type locality).

Lophortyx californianus Gray, List Spec. Bds. Brit. Mus., Part 3, Gall., p. 44, 1844.

Callipepla californica Gould, Monog. Odontoph., pl. 16, text unpagcd, 1850; Dwight, Auk, 17, p. 48, 1900 (molt).

Callipepla californica vallicola Ridgway, Proc. U. S. Nat. Mus., 8, p. 355, Sept. 2, 1885—interior valleys of California (type, from Baird, Shasta County, California, in U. S. National Museum); Dwight, Auk, 17, p. 48, 1900 (molt); Grinnell, Univ. Calif. Pub. Zool., 38, p. 269, 1932 (note on type).

Lophortyx californicus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 400, 1893—part; idem, Handb. Game-Bds., 2, p. 121, 1897—part (monog.).

Lophortyx californicus californicus Peck, Condor, 13, p. 149, 1911 (hybrid with *Oreortyx pictus*).

Lophortyx californica vallicola Grinnell, Bryant, and Storer, Game Bds. Calif., p. 514, 1918 (range and habits, California); Grinnell, Univ. Calif. Pub. Zool., 32, p. 101, 1928—Lower California; Bent, Bull. U. S. Nat. Mus., 162, p. 62, 1932 (life history).

Lophortyx californica plumbea Grinnell, Condor, 28, p. 128, May 15, 1926—San José, alt. 2,500 feet, 45 miles northeast of San Quintin, Lower California (type in Museum of Vertebrate Zoology, Berkeley, California); idem, Univ. Calif. Pub. Zool., 32, p. 101, 1928—northwestern Lower California; Bent, Bull. U. S. Nat. Mus., 162, p. 71, 1932 (life history).

Lophortyx californica californica Gander, Condor, 33, p. 85, 1931 (habits and develop. of young); Peters, Bds. World, 2, p. 44, 1934 (range).

Lophortyx californica orecta Oberholser, Sci. Publ. Cleveland Mus. Nat. Hist., 4, p. 2, 1932—mouth of Twenty Mile Creek, Warner Valley, 9 miles south of Adel, Oregon (type in Cleveland Museum of Natural History, Cleveland, Ohio).

¹ *Material examined*.—Mexico: San Luis Potosi, Hacienda La Parada, 1; Ahualulco, 1; Hidalgo, San Augustin, 1; Irolo, 1; Queretaro, Tequisquiapan, 2.

Lophortyx californica Sumner, Calif. Fish and Game, 21, pp. 167, 277, 1935 (life history and conservation).

Range.—Subarid interior region of the western United States from Klamath Lake, Oregon, south into Lower California to about lat. 30° N.

Field Museum Collection.—41: Oregon (Redmond, 4); California (Mariposa, 1; North Pomona, 2; Pasadena, 1; Palcines, 2; Eagle Rock, 1; San Diego County, 1; Monterey, 4; Claremont, 6; Clipper Gap, 17; Piedra, 2).

Conover Collection.—11: Oregon (Prineville, 1; Salem, 1); California (Cardiff, 2; Buena Vista Lake, 1; Pismo, 1; Carpenteria, 1; San Ardo, 1; Topanga Canyon, 1; Salinas, 2).

****Lophortyx californica brunnescens* Ridgway.¹ CALIFORNIA QUAIL.**

Lophortyx californicus brunnescens Ridgway, Proc. Biol. Soc. Wash., 2, p. 94, Apr. 10, 1884—"Santa Barbara," California, errore, = San Francisco (type in United States National Museum); Grinnell, Univ. Calif. Pub. Zool., 38, p. 269, 1932 (note on type and type locality).

Lophortyx californica californica Grinnell, Bryant, and Storer, Game Bds. Calif., p. 537, 1918 (range); Bent, Bull. U. S. Nat. Mus., 162, p. 59, 1932 (life history).

Lophortyx californica brunnescens Grinnell, Condor, 33, p. 38, 1931 (on type locality); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 423, 1932—Chile (introduced); Peters, Bds. World, 2, p. 44, 1934 (range).

Range.—Humid Pacific coast region from southwestern Oregon south to Santa Cruz County, California. Introduced into several places in western North America and into Hawaii, New Zealand, and Chile.

Field Museum Collection.—20: Utah (Ogden, 2); California (Mountain View, 1; San José, 3; Hayward, 1; Oakland, 2; St. Helena, 2; San Gerónimo, 1; Santa Clara County, 1; Palo Alto, 2; Olema, 1; Berryessa, 1; Los Gatos, 1; San Bruno, 1); Chile (Tambillos, Coquimbo, 1).

Conover Collection.—12: California (Nicasio, 2; San Francisco, 1; Glenwood, 2; Hayward, 1; Ornbau, 1; Berkeley, 1; Yorkville, 1); Chile (Prov. Colchagua, Baños de Cauquenes, 1; Prov. Coquimbo, Tambillos, 2).

¹*Lophortyx californica brunnescens* Ridgway: The males are darker, more brownish dorsally, than typical *L. c. californica*. The females are darker and more brownish, both above and below.

Lophortyx californica catalinensis Grinnell.¹ CATALINA ISLAND QUAIL.

Lophortyx catalinensis Grinnell, Auk, 23, p. 262, July, 1906—Avalon, Santa Catalina Island, California (type now in Museum of Vertebrate Zoology, Berkeley, Calif.; cf. idem, Univ. Calif. Pub. Zool., 38, p. 270, 1932).

Lophortyx californica catalinensis Grinnell, Bryant, and Storer, Game Bds. Calif., p. 537, 1918 (range, disc.); Bent, Bull. U. S. Nat. Mus., 162, p. 70, 1932 (life history); Peters, Bds. World, 2, p. 45, 1934 (range).

Range.—Santa Catalina Island, Los Coronados Islands, California.

***Lophortyx californica achrustera** Peters.² SAN LUCAS QUAIL.

Lophortyx californica achrustera Peters, Proc. New Engl. Zool. Cl., 8, p. 79, May 16, 1923—La Paz, Lower California (type in Museum of Comparative Zoology, Cambridge, Mass.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 103, 1928—Lower California; Bent, Bull. U. S. Nat. Mus., 162, p. 72, 1932 (life history); Peters, Bds. World, 2, p. 45, 1934 (range).

Range.—Lower California from lat. 30° N., southward.

Field Museum Collection.—2: Lower California, 2.

Conover Collection.—9: Lower California (San José del Cabo, 2; La Paz, 5; Todos Santos, 2).

Lophortyx californica canfieldae van Rossem.³ CANFIELD'S QUAIL.

Lophortyx californica canfieldae van Rossem, Auk, 56, p. 68, Jan., 1939—Lone Pine, Inyo County, California (type in the Dickey Collection, now in the University of California at Los Angeles).

Range.—Owen's Valley in east-central California.

Lophortyx gambelii sana Mearns.⁴ OLATHE QUAIL.

¹*Lophortyx californica catalinensis* Grinnell: Said to be similar to *L. c. californica*, but about 9 per cent larger and coloration somewhat darker; similar to *L. c. brunescens*, but larger and much less deeply brownish dorsally.

²*Lophortyx californica achrustera* Peters: Most similar to *L. c. californica*, but paler, less olivaceous above, chest lighter gray, the buffy patch on lower breast of the male much paler, and the chestnut patch on the abdomen much smaller.

³*Lophortyx californica canfieldae* van Rossem: Stated by the describer to be very similar to *L. c. achrustera* and distinguishable only by the even paler and more purely bluish or grayish (less brownish) chest, paler and less brownish flanks and under tail coverts.

⁴*Lophortyx gambelii sana* Mearns: Males have upper parts neutral gray unwashed with olive; crown darker chestnut than typical *gambelii*, and chest patch lighter buff. Females have upper parts as in the male; crown of head darker, chin and throat darker and more grayish, and chest and abdomen pale olive-buff (almost a dirty white) instead of cream color.

Material examined.—Colorado: Grand Junction, 3; Olathe, 1.

Lophortyx gambelii sanus Mearns, Proc. Biol. Soc. Wash., 27, p. 113, 1914—Olathe, Montrose County, Colorado (type in U. S. National Museum examined); Bent, Bull. U. S. Nat. Mus., 162, p. 84, 1932 (life history); Peters, Bds. World, 2, p. 45, 1934 (range and disc. in footnote).

Range.—Western Colorado in the drainage areas of the Uncompagre and Gunnison rivers and the portion of the Rio Grande Valley lying in Colorado.

****Lophortyx gambelii gambelii* Gambel. GAMBEL'S QUAIL.**

Lophortyx gambelii "Nutt." Gambel, Proc. Acad. Nat. Sci. Phila., 1, p. 260, May 19, 1843—"Some distance west [i.e. east] of California"—southern Nevada, fide A. O. U. Committee, 1910 (type in Philadelphia Academy of Sciences of Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 20, 1899).

Callipepla venusta Gould, Proc. Zool. Soc. Lond., 14, p. 70, Oct., 1846—California (type lost, formerly in Neuchâtel Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 316, 1932).

Callipepla gambelii Gould, Monog. Odontoph., pl. 17, text unpagged, 1850.

Lophortyx gambeli Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 403, 1893; idem, Handb. Game-Bds., 2, p. 124, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 292, 1903; Gilman, Condor, 9, p. 148, 1907 (range in California); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 538, 1918 (range and habits, California).

Lophortyx gambeli deserticola Stephens, Auk, 12, p. 371, Oct., 1895—Palm Springs, Riverside County, California (type in collection of F. Stephens, now in collection of San Diego Society of Natural History; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 270, 1932).

Callipepla gambeli fulvipectus Nelson,¹ Auk, 16, p. 26, 1899—Camoá, Rio Mayo, Sonora, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Callipepla gambeli Dwight, Auk, 17, p. 49, 1900 (molt).

Lophortyx gambeli gambeli F. M. Bailey, Bds. New Mexico, p. 218, pl. 19, 1928 (range and habits, New Mexico); Bailey, Auk, 45, p. 210, 1928 (hybrid with *Callipepla squamata pallida*); Bent, Bull. U. S. Nat. Mus., 162, p. 73, 1932 (life history); Gorsuch, Bull. Univ. Arizona, 5, No. 4, p. 1, pls. 1-5, 1935 (life history, Arizona).

Lophortyx gambelii gambelii Grinnell, Univ. Calif. Pub. Zool., 32, p. 103, 1928—Lower California; van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 245, 1931—Sonora (El Doctor, Pesquiera, Tecoripa, Saric, Guaymas, Magdalena, Sasabe Valley); idem, Bull. Mus. Comp. Zool., 77, p. 431, 1934—Mexico (Bacuachi, San Pedro, Oposura, Granados); Peters, Bds. World, 2, p. 45, 1934 (range).

¹ The type and a series of eighteen topotypes of this supposed race have been compared with birds from Utah, New Mexico, Arizona, and California. When a series of fall specimens was compared with a series in like plumage from the United States, some specimens of the Sonoran birds were slightly more buffy on the breast; but the series did not show any differences great or constant enough to warrant subspecific separation.

Lophortyx gambelii fulvipectus van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 246, 1931—Sonora (Obregón, Tésia, Tobari Bay, Agiabampo); Peters, Bds. World, 2, p. 46, 1934 (range).

Range.—Southwestern Utah and southern Nevada south to extreme western Texas, southwestern New Mexico, southern Sonora, and extreme northeastern Lower California.¹

Field Museum Collection.—46: New Mexico (Mimbres, 4; Rincon, 3); Arizona (Phoenix, 21; Tucson, 9; Pomerene, 1; Fort Lowell, 1; Calabasas, 2; Tempe, 1); Sonora (Cerro Blanco, 4).

Conover Collection.—46: Utah (St. George, 4); New Mexico (Fort Bayard, 1); Arizona (Tucson, 2; Prescott, 6; Paradise, 1); California (Blythe, 2; Yermo, 3; Indio, 2); Sonora (Rancho Carrizo, 9; Maytoarena, 3; Pesquiera, 2; Tecoripa, 5; Camoa, 6).

***Lophortyx gambelii pembertoni* van Rossem.² TIBURÓN ISLAND QUAIL.**

Lophortyx gambelii pembertoni van Rossem, Trans. San Diego Soc. Nat. Hist., 7, p. 132, July 28, 1932—Petrel Bay, just south of Narragansett Point, east side of Tiburón Island, Sonora, Mexico (type in California Institute of Technology); Peters, Bds. World, 2, p. 46, 1934 (range).

Range.—Confined to Tiburón Island, Gulf of California.

****Lophortyx douglasii bensoni* (Ridgway).³ BENSON'S QUAIL.**

Callipepla elegans bensoni Ridgway, Proc. U. S. Nat. Mus., 10, p. 148, 1887—Campos, Sonora=18 miles north of Cumpas, Sonora; cf. van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 246, 1931 (type in U. S. National Museum).

Lophortyx douglasi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 404, 1893—part, Sonora; idem, Handb. Game-Bds., 2, p. 126, 1897—part, Sonora; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 293, 1903—part, Mexico (Sonora).

Lophortyx douglasii bensoni van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 246, 1931—Sonora (Pesqueira, Tecoripa, San Javier, Guaymas, and 90 miles southeast of Nogales; also characters of race); idem, Bull. Mus. Comp. Zool., 77, p. 431, 1934 (disc. races in Sonora); Peters, Bds. World, 2, p. 46, 1934 (range).

¹ *Additional material examined*.—Utah: St. George, 5; Toquesville, 1.—New Mexico: Fort Bayard, 1; Garfield, 1; Santa Rita Mountains, 1; Frisco, 1.—Sonora: Camoa, 13.

² *Lophortyx gambelii pembertoni* van Rossem: Dorsal plumage said to be remarkably paler and grayer than that of any other known race.

³ *Lophortyx douglasii bensoni* (Ridgway): The males of this race are more grayish, less olivaceous on the back and rump than typical *L. d. douglasii*; the females are paler and grayer, less brownish.

Lophortyx douglasii douglasii van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 245, 1931—Sonora (Tésia, Chinobampo, Guirocoba).

Range.—State of Sonora, northwestern Mexico.

Field Museum Collection.—2: Sonora (Soyopa, 1; Tecoripa, 1).

Conover Collection.—33: Sonora (Tecoripa, 16; Soyopa, 5; Guirocoba, 4; Camoa, 8).

****Lophortyx douglasii douglasii* (Vigors). DOUGLAS'S QUAIL.**

Ortyx douglasii Vigors, Zool. Journ., 4, No. 15, p. 354, Jan., 1829—Monterey, errore,=Mazatlan, Sinaloa (type now in British Museum; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 316, 1932); Douglas, Trans. Linn. Soc. Lond., 16, p. 145, 1829.

Ortyx elegans Lesson, Cent. Zool., p. 189, pl. 61, March, 1831—California (type in the Rivoli Collection, actual location unknown).

Ortyx spilogaster Vigors, Proc. Comm. Sci. Corresp. Zool. Soc. Lond., 2, "1832," p. 4, pub. May 14, 1834—Mexico (type in coll. of H. Cuming).

Callipepla douglasii Gould, Monog. Odont., Introduction, p. 19, 1850 (disc.).

Callipepla elegans Gould, Monog. Odont., pl. 18, text unpagéd, 1850.

Lophortyx douglasi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 404, 1893—part, Sinaloa, Jalisco; idem, Handb. Game-Bds., 2, p. 126, 1897—part, Sinaloa, Jalisco; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 293, 1903—part, Mexico (Sinaloa, Tepic, Jalisco, and Colima).

Lophortyx douglasi douglasi Miller, Bull. Amer. Mus. N. H., 21, p. 342, 1905—Escuinapa, Arroyo de Limones, Juanna Gomez River, and Cosala, southern Sinaloa; idem, l.c., 22, p. 162, 1906—Casa Blanca, northwestern Durango.

Lophortyx douglasii douglasii McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 7, 1927—Labrados, Sinaloa; Peters, Bds. World, 2, p. 46, 1934 (range).

Range.—Western Mexico, from north-central Sinaloa and northwestern Durango south to Colima.

Field Museum Collection.—2: Sinaloa (Escuinapa, 1; unspecified, 1).

Conover Collection.—9: Sinaloa (Escuinapa, 2; El Molino, 1; Culiacan, 1); Nayarit (Rio Las Cañas, 4); Jalisco (Las Peñas, 1).

***Lophortyx leucoprosopon* Reichenow.¹**

Lophortyx leucoprosopon Reichenow, Orn. Monatsber., 3, p. 11, figured op. cit., p. 97, 1895—origin unknown; Peters, Bds. World, 2, p. 46, 1934 (disc.).

Range.—Unknown.

¹*Lophortyx leucoprosopon* Reichenow: Described from a living pair in a private aviary, believed to have been bought in Hamburg, Germany, from a sailor. Probably a hybrid, perhaps of *L. gambelii* and *L. douglasi*.

Genus **PHILORTYX** Gould

Philortyx Gould, Monog. Odont., Part 2, pl. 6 and text, 1846 (=pl. 14 of bound volume and Introduction, p. 17, 1850)—type, by monotypy, *Ortyx fasciatus* Gould.

***Philortyx fasciatus** (Gould). BARRED QUAIL.

Ortyx fasciatus Gould, Proc. Zool. Soc. Lond., 11, "1843," p. 133, pub. March, 1844—California, errore,= Mexico (cotypes in Brussels Museum and in coll. of Prince Massena).¹

Ortyx perrotiana Des Murs, Rev. Zool., 8, p. 207, 1845—Mexico (type in coll. of M. Perrot, Paris).

Philortyx fasciatus Gould, Monog. Odont., Part 2, pl. 14, text unpagged, 1846; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 406, 1893; idem, Handb. Game-Bds., 2, p. 127, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 294, 1903—Mexico (Colima, Puebla); Peters, Bds. World, 2, p. 46, 1934 (range).

Philortyx personatus Ridgway, Auk, 3, p. 333, 1886—Chietla, Puebla, Mexico (type in National Museum of Mexico).

Range.—Colima, Michoacan, Guerrero, and Puebla, Mexico.

Field Museum Collection.—11: Colima (Colima, 5); Guerrero (Iguala, 4; Apipiluluca, 2).

Conover Collection.—5: Colima (Colima, 2); Michoacan (Apatzingan, 3).

Genus **COLINUS** Goldfuss

Ortyx (not of Oken, 1816) Stephens, in Shaw, Gen. Zool., 11, (2), p. 376, 1819—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 107, 1855), *Tetrao virginianus* Linnaeus.

Colinus Goldfuss, Handb. Zool., 2, p. 220, 1820—type, by monotypy, "*Perdix mexicana*, Caille de la Louisiane, Pl. Enl. No. 149"=*Tetrao virginianus* Linnaeus.

Ortygia Boie, Isis, 1828, col. 326—type, by subs. desig. (Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 414, 1893), *Tetrao virginianus* Linnaeus.

Colinia Nuttall, Man. Orn. U. S. & Canada, 1, p. 646, 1832—new name for *Ortyx* Stephens.

Eupsychortyx Gould, Monog. Odont., Part 1, pl. 10, 1844—type, by monotypy, *Ortyx leucotis* Gould.

***Colinus virginianus virginianus** (Linnaeus). EASTERN BOB WHITE.

Tetrao virginianus Linnaeus, Syst. Nat., 10th ed., 1, p. 161, 1758—based on "The American Partridge" Catesby, Nat. Hist. Carolina, 2, App., p. 12, pl. 12; "in America"=South Carolina.

¹ The species does not figure in the list of types of the Philadelphia Academy of Natural Sciences, which acquired the Massena Collection (cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, pp. 5-62, 1899; cf. also Grinnell, Univ. Calif. Pub. Zool., 38, p. 317, 1932).

Tetrao marilandicus Linnaeus, Syst. Nat., 10th ed., 1, p. 161, 1758—based on "Perdix Novae Angliae" Albin, Nat. Hist. Bds., 1, p. 26, pl. 28; New England.

Tetrao mexicanus Linnaeus, Syst. Nat., 12th ed., 1, p. 277, 1766—"Habitat in Mexico, Ludoviciana" (principally based upon "La Caille de la Louisiane" Brisson, Orn., 1, p. 258, pl. 22, fig. 2; type, from Louisiana, in Réaumur Collection).

Tetrao marilandus Gmelin, Syst. Nat., 1, (2), p. 761, 1789—habitat in America from Acadia to Florida (principally based on "La Perdrix de la Nouvelle Angleterre" Brisson, Orn., 1, p. 229).

Perdix borealis Temminck, Hist. Nat. Pig. & Gall., 3, pp. 436, 735, 1815—part, temperate North America.

Ortyx virginianus Gould, Monog. Odont., pl. 1, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 415, 1893; idem, Handb. Game-Bds., 2, p. 135, 1897 (monog.).

Colinus virginianus Cory, Auk, 4, p. 224, 1887—part, Haiti, San Domingo, Jamaica, St. Croix; Dwight, l.c., 17, p. 43, 1900 (molt).

Colinus virginianus taylori Lincoln, Proc. Biol. Soc. Wash., 28, p. 103, 1915—Laird, Yuma County, Colorado (type in Colorado Museum of Natural History, Denver).

Colinus virginianus virginianus Bond, Proc. Acad. Nat. Sci. Phila. 80, p. 493, 1928—Fourcy, Lake Miragoane, Haiti; Stoddard, "The Bob White Quail" 1931 (conserv., prop., life hist.); Bent, Bull. U. S. Nat. Mus., 162, p. 9, 1932 (life hist.); Peters, Bds. World, 2, p. 47, 1934 (range).

Range.—Southwestern Maine, southern Ontario, southern Minnesota and South Dakota, south to northern Florida, the Gulf Coast, eastern and northern Texas and eastern Colorado. Introduced into several of the western states, Cuba, Jamaica, Haiti, St. Croix, and St. Kitts. Introduction of Mexican and Texan stock into all parts of the United States has made pure bred *C. v. virginianus* a rare bird.

Field Museum Collection.—57: Massachusetts (Cohasset, 1; West Yarmouth, 2; Boston, 3; Walliston Heights, 1; unspecified, 2); Pennsylvania (Bucks County, 1); West Virginia (unspecified, 5); North Carolina (unspecified, 1); South Carolina (unspecified, 2); Florida (East Pass, 2); Wisconsin (Milton, 1; Beaver Dam, 2; Neillsville, 1); Illinois (Grand Tower, 2; Du Bois, 1; McNab, Putnam County, 3; Farina, 3; Chicago, 2; Grand Chain, 1; Olive Branch, 7; Lewiston, 1); Arkansas (White River Prairie, 1; Stuttgart, 6; Fairmont, 1; Crockett's Bluff, 1); Alabama (Atella, 1); Mississippi (Holly Springs, 1); Haiti (Le Coup, 2).

Conover Collection.—17: Massachusetts (West Medway, Norfolk County, 2); Michigan (Waterloo, Jackson County, 1); Illinois

(Benton, 8; Putnam, 1); Arkansas (Fayetteville, Washington County, 4); Tennessee (Grand Junction, Hardeman County, 1).¹

****Colinus virginianus floridanus* (Coues). FLORIDA BOB WHITE.**

- *Ortyx virginianus* var. *floridanus* Coues, Key N. Amer. Bds., p. 237, 1872—Florida (type, from Enterprise, Volusia County, in Museum of Comparative Zoology, Cambridge, Mass.).

Colinus virginianus (not *Tetrao virginianus* Linnaeus) Cory, Auk, 4, p. 224, 1887—part, Bahamas, Antigua.

Ortyx floridanus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 418, 1893; idem, Handb. Game-Bds., 2, p. 138, 1897—Florida, introduced in Cuba (not *O. cubanensis*).

Colinus bahamensis Maynard, App. to Cat. Bds. W. Ind., p. 33, 1899—Island of New Providence, Bahama Islands (cotypes in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 159, 1930 [crit.]).

Colinus virginianus floridanus Dwight, Auk, 17, p. 45, 1900 (molt); Todd, Ann. Carnegie Mus., 7, p. 412, 1911—New Providence, Bahamas (crit.); Bent, Bull. U. S. Nat. Mus., 162, p. 32, 1932 (life hist.); Peters, Bds. World, 2, p. 47, 1934 (range).

Range.—Florida peninsula; Bahama Islands (introduced?). Also introduced into Antigua.²

Field Museum Collection.—40: Florida (Lake Okeechobee, 2; Gainesville, 4; New Found Harbor, 2; Fort Myers, 5; Jupiter, 6; La Fayette County, 1; Hastings, 2; Tarpon Springs, 2; Rosewood, 1; Banana River, 2; Dunedin, 1; Lake Worth, 1; Coral Gables, 1; Goulds, 1; Grove City, 1; Blue Springs, 1; Mary Esther, 1); Bahamas (Nassau, 3); West Indies (Antigua, 3).

Conover Collection.—18: Florida (Bronson, 1; Charlotte Harbor, 4; Nassau County, 2; Dade County, 2; Homosassa Springs, 9).

***Colinus virginianus insulanus* Howe.³ KEY WEST BOB WHITE.**

Colinus virginianus insulanus Howe, Proc. Biol. Soc. Wash., 17, p. 168, 1904—Key West, Florida (type in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 160, 1930); Peters, Bds. World, 2, p. 47, 1934 (range).

¹ This specimen belongs to the erythristic variety which has lately become fairly common in this section of Tennessee.

² The three specimens from Antigua (2 males, 1 female) are not typical *floridanus*, being much grayer dorsally, and lighter on the chest. It may be that they are crossed with typical *virginianus*. Dorsally, however, they more closely resemble *texanus*, but this faded coloration may be due to the time of year (May, 1890) that the specimens were collected.

³ *Colinus virginianus insulanus* Howe: Like *C. v. floridanus* but crown uniform dark fuscous and forehead showing more white. Size decidedly smaller.

Range.—Known only from the type. Supposed to have inhabited Key West, and perhaps other islands of the Florida keys. Now extinct.

***Colinus virginianus cubanensis** (G. R. Gray). CUBAN BOB WHITE.

Ortyx cubanensis "Gould" G. R. Gray, Gen. Bds., 3, p. [514], 1846—Cuba (new name for bird described as *Ortyx virginianus* in La Sagra's Hist. Nat. Cuba, p. 182, 1839); Gould, Monog. Odont., pl. 2, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 421, 1893; idem, Handb. Game-Bds., 2, p. 140, 1897 (monog.).

Colinus cubanensis Todd, Ann. Carnegie Mus., 10, p. 199, 1916—Bibijagua, Los Indios, and Nueva Gerona, Isle of Pines (crit.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 51, 1922—Cuba and Isle of Pines (habits).

Colinus virginianus cubanensis Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 124, 1931 (introd. Dominican Rep.); Peters, Bds. World, 2, p. 47, 1934 (range).

Range.—Cuba and the Isle of Pines. Introduced into the Dominican Republic. The original race probably now contaminated by introductions of *C. v. virginianus* or *C. v. floridanus*.

Field Museum Collection.—6: Cuba (Palacios, 2; Havana, 1; unspecified, 2); Dominican Republic (San Domingo City, 1).

Conover Collection.—11: Cuba (Guantánamo, 2; San José de las Lajas, 1; Prov. Havana, Duran, 1; Minas, 2; Santa Cruz de los Anos, 1; Prov. Pinar del Rio, Artemisia, 3); Isle of Pines (La Vega, 1).

***Colinus virginianus texanus** (Lawrence). TEXAS BOB WHITE.

Ortyx texanus Lawrence, Ann. Lyc. Nat. Hist. N. Y., 6, p. 1, 1853—near Ringgold Barracks, Texas (type in coll. of Geo. N. Lawrence, now in American Museum of Natural History, New York); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 419, 1893; idem, Handb. Game-Bds., 2, p. 139, 1897—part (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 298, 1903—Tamaulipas, Nuevo Leon, Mexico.

Colinus virginianus texanus Nelson, Auk, 15, p. 121, 1898 (range in Mexico); Dwight, l.c., 17, p. 46, 1900 (molt); Nelson, l.c., 19, p. 388, pl. 14, 1902 (dist. char.); Phillips, l.c., 28, p. 74, 1911—Matamoros and San Fernando, Tamaulipas; F. M. Bailey, Birds New Mexico, p. 213, 1928 (habits, range, in New Mexico); Bent, Bull. U. S. Nat. Mus., 162, p. 34, 1932 (life hist.); Peters, Bds. World, 2, p. 47, 1934 (range).

Range.—Southeastern New Mexico to southern Texas and south to northeastern Coahuila, Nuevo Leon, and central Tamaulipas (sea level to 2,500 feet).

Field Museum Collection.—12: Texas (Corpus Christi, 1; Seadrift, 1; Fort Worth, 1; Cameron County, 1; Ingram, Kerr County, 1; Laredo, 1; unspecified, 1); Mexico (Sabinas, Coahuila, 5).

Conover Collection.—31: Texas (Lacoma, Hidalgo County, 3; Raymondsville, Willacy County, 14; Cameron County, 1); Mexico, Tamaulipas (Cruz, 13).

****Colinus virginianus ridgwayi* Brewster. MASKED BOB WHITE.**

Colinus ridgwayi Brewster, Auk, 2, p. 199, 1885—18 miles southwest of Sasabe, Sonora, Mexico (type in British Museum); J. A. Allen, l.c., 3, p. 275, 1886—Barboquivari Mountains, Arizona (first U. S. record); idem, Bull. Amer. Mus. Nat. Hist., 1, pp. 276, 279, pl. 23, 1886 (char. and life hist. in Arizona); idem, Auk, 6, p. 189, 1889 (first plumage); Nelson, l.c., 15, p. 121, 1898 (range); Dwight, l.c., 17, p. 46, 1900 (molt); H. Brown, l.c., 21, p. 209, 1904 (hist. in Arizona); Bent, Bull. U. S. Nat. Mus., 162, p. 36, 1932 (life hist.); Cottam and Knappen, Auk, 56, p. 152, 1939 (food).

Ortyx ridgwayi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 422, 1893; idem, Handb. Game-Bds., 2, p. 143, 1897—Arizona and Sonora; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 302, 1903—Sasabe, Campos, and Bacuachi, Sonora.

Colinus virginianus ridgwayi van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 245, 1931—Magdalena, Sonora, Mexico; idem, Bull. Mus. Comp. Zool., 77, p. 431, 1934—Cumpas and Bacuachi, Sonora; Peters, Bds. World, 2, p. 49, 1934 (range).

Range.—Middle part of southern Arizona boundary south to south-central Sonora, Mexico (1,000 to 2,500 ft.).

Field Museum Collection.—3: Arizona (southern Arizona, 1); Mexico, Sonora (Tecoripa, 2).

Conover Collection.—29: Mexico, Sonora (Rancho Carrizo, 10; Tecoripa, 19).

****Colinus virginianus maculatus* Nelson.¹ MOTTLED BOB WHITE.**

Colinus virginianus maculatus Nelson, Auk, 16, p. 26, 1899—Altamira, Tamaulipas, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); idem, l.c., 19, p. 389, pl. 14, 1902 (disc.); Phillips, l.c., 28, p. 74, 1911—Guiaves, Rio Santa, Santa Leonor, Rio Cruz, Montelunga, Victoria, and Altamira, Tamaulipas; Peters, Bds. World, 2, p. 48, 1934 (range).

Ortyx graysoni panucensis Lowe, Bull. Brit. Orn. Cl., 23, p. 18, 1908—Valley of Panuco River, near Tampico, Mexico (type in British Museum).

¹ *Colinus virginianus maculatus* Nelson: Dorsal plumage slightly darker than *C. v. texanus*, with some specimens having much more gray in the mantle. In the males, the black band below the white throat is generally much wider; the breast, flanks, and abdomen are chestnut mottled with black and white spots, which vary in intensity in different specimens. In some males the spotting is very slight, in others very dense, especially in the center of the abdomen. The under surface of the females is slightly more heavily marked with black.

Additional material examined.—Tamaulipas: Jaumave, 2; Altamira, 1; Forlon, 3; Manuel, 1; Aldamana, 1.—San Luis Potosi: Tancanhuitz, 3; Chyol, 2.—Vera Cruz: Ozuluama, 1; Buena Vista, 1; Joscal, 1.

Range.—Central Tamaulipas south to northern Vera Cruz (Ozuluama) and west to eastern San Luis Potosi (Tancanhuitz).

Field Museum Collection.—5: Mexico (San Luis Potosi, 5).

Conover Collection.—12: Mexico, Tamaulipas (Tampico, 2; Hacienda de Naránjo, 30 miles north of Velasco, 9); San Luis Potosi (El Bonito, 1).

****Colinus virginianus graysoni* (Lawrence). GRAYSON'S BOB WHITE.**

Ortyx graysoni Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 476, 1867—Guadalajara, Mexico (type in U. S. National Museum); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 422, 1893; idem, Handb. Game-Bds., 2, p. 142, pl. 32, 1897—Jalisco, western Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 300, 1903—Guadalajara, Jalisco, and San Luis Potosi.

Colinus graysoni Allen, Bull. Amer. Mus. Nat. Hist., 1, pp. 276, 289, 1886 (dist. char.); Nelson, Auk, 15, p. 121, 1898 (range).

Colinus virginianus graysoni Peters, Bds. World, 2, p. 48, 1934 (range).

Range.—Southern part of the Mexican tableland from central southern San Luis Potosi west to southeastern Nayarit and south to southern Hidalgo, the Valley of Mexico, and southern Jalisco (3,000 to 7,500 ft.).

Field Museum Collection.—1: Mexico, Jalisco (Tuxpan, 1).

Conover Collection.—2: Mexico (Nayarit, Rio Ameca, near Amatlan de Cañas, 1; Guanajuato, Guanajuato, 1).¹

***Colinus virginianus pectoralis* (Gould). BLACK-BREASTED BOB WHITE.**

Ortyx pectoralis Gould, Proc. Zool. Soc. Lond., 10, "1842," p. 182, pub. Feb., 1843—Mexico (type in coll. of Earl of Derby, now in Liverpool Museum); idem, Monog. Odont., pl. 5, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 421, 1893; idem, Handb. Game-Bds., 2, p. 142, 1897—Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 299, 1903—part, Vera Cruz, Jalapa.

Colinus pectoralis Allen, Bull. Amer. Mus. Nat. Hist., 1, pp. 276, 289, 1886 (dist. char.); Nelson, Auk, 15, pp. 117, 121, 1898 (range); idem, l.c., 19, p. 389 (footnote), pl. 14, 1902 (dist. char.).

Colinus virginianus pectoralis Peters, Bds. World, 2, p. 48, 1934 (range).

Range.—Eastern base of the Cordillera in the central part of the State of Vera Cruz (500 to 5,000 ft.).²

¹ *Additional material examined*.—San Luis Potosi: Rio Verde, 2.—Hidalgo: Pachuca, 1.—Guanajuato: Celaya, 1.—Jalisco: Guadalajara, 1; La Barca, 1; Lagos, 1; Etzatlan, 1; Ocotlan, 9; Ameca, 3; Tuxpan, 3.—Nayarit: Rio Ameca, near Amatlan de Cañas, 2.

² *Material examined*.—Vera Cruz: Carrizal, 3; Jico, 2.

***Colinus virginianus nigripectus** Nelson.¹ PUEBLA BOB WHITE.

Colinus graysoni nigripectus Nelson, Auk, 14, p. 47, 1897—Atlilco, Puebla, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); idem, l.c., 15, pp. 116, 121, 1898 (range); idem, l.c., 19, p. 389, pl. 14, 1902 (dist. char.).

Colinus virginianus nigripectus Peters, Bds. World, 2, p. 48, 1934 (range).

Range.—Tableland of the southern half of the states of Puebla and Morelos, Mexico.

Conover Collection.—2: Morelos (Cuernavaca, 2).

Colinus virginianus godmani Nelson.² GODMAN'S BOB WHITE.

Colinus godmani Nelson, Auk, 14, p. 45, 1897—Jaltipan, Vera Cruz, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); idem, l.c., 15, pp. 115, 121, pl. 2, 1898 (range); Ogilvie-Grant; Ibis, 1902, p. 240 (crit.); Nelson, Auk, 19, p. 388, pl. 14, 1902 (dist. char.).

Oryx godmani Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 301, 1903—Jaltipan, Minatitlan, and Lake Catemaco, Vera Cruz.

Colinus virginianus godmani Peters, Bds. World, 2, p. 48, 1934 (range).

Range.—Lowlands of southern Vera Cruz, Mexico, and probably ranging into Tabasco (sea level to 1,500 ft.).

Colinus virginianus minor Nelson.³ LEAST BOB WHITE.

Colinus minor Nelson, Auk, 18, p. 47, 1901—Palenque, Chiapas, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); idem, l.c., 19, p. 389, pl. 14, 1902 (dist. char.).

Colinus virginianus minor Peters, Bds. World, 2; p. 48, 1934 (range).

¹ *Colinus virginianus nigripectus* Nelson: The male is nearest to *C. v. graysoni*, but the rufous of the under parts is generally paler and the black band below the white throat extends onto the chest and sides of the neck. Somewhat resembles *C. v. pectoralis* but the rufous of under parts is lighter, the black of the chest not so extensive and with less concealed spots of white. The upper parts are lighter than either *graysoni* or *pectoralis*.

Additional material examined.—Morelos: Puente de Ixtla, 13; Cuernavaca, 1.—Puebla: Atlilco, 8.

² *Colinus virginianus godmani* Nelson: The male has the throat white; the chest and middle of abdomen almost to vent black; sides of chest and flanks chestnut, each feather edged with black; the lower flank feathers mottled with black and white; middle of crown and nape blackish; the red on mantle chestnut. The female is very dark with no rufous in plumage, resembling female of *salvini*, but under parts more buffy.

Material examined.—Vera Cruz: Catemaco, 1; Jaltipan, 3.

³ *Colinus virginianus minor* Nelson: The smallest of the known races of *virginianus*, wing 93 mm. The male has the throat white with a narrow black collar between it and the chestnut of the chest; entire chest and breast chestnut with each feather narrowly edged with black; under tail coverts and lower flanks spotted with black and white; red of mantle rufous chestnut. Somewhat resembles *maculatus*, but much darker and the chest and breast are rufous and black with practically no white. The female is much darker than the same sex in *maculatus*, but is paler and more distinctly barred on under parts than *godmani*.

Material examined.—Chiapas: Palenque, 6.

Range.—Grassy plains in northeastern Chiapas and adjacent portion of Tabasco, Mexico; probably also neighboring sections of Guatemala.

****Colinus virginianus thayeri* Bangs and Peters.¹ THAYER'S BOB WHITE.**

Colinus virginianus thayeri Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 386, 1928—Chivelá, Oaxaca, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, Bds. World, 2, p. 49, 1934 (range).

Range.—Northeastern part of the State of Oaxaca, probably intergrading with *pectoralis* and *nigripectus* in the north-central section of the state.

Conover Collection.—1: Oaxaca (Tutla, 1).

***Colinus virginianus atriceps* (Ogilvie-Grant). BLACK-HEADED BOB WHITE.**

Ortyx atriceps Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 415 (in key), p. 424, 1893—Putla, Oaxaca, Mexico (cotypes in British Museum); idem, Handb. Game-Bds., 2, p. 144, pl. 33, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 303, 1903—Putla.

Colinus atriceps Nelson, Auk, 15, p. 122, 1898 (range).

Colinus virginianus atriceps Peters, Bds. World, 2, p. 49, 1934 (range).

Range.—Known only from the type locality in western Oaxaca, probably ranging into Guerrero.

****Colinus virginianus insignis* Nelson.² GUATEMALAN BOB WHITE.**

Colinus insignis Nelson, Auk, 14, p. 46, 1897—Nenton, Guatemala (type in U. S. National Museum, Biological Survey Collection, examined); idem,

¹ *Colinus virginianus thayeri* Bangs and Peters: The male is nearest to *C. v. pectoralis*, but the black chest band is broader and with few if any concealed white spots on the shafts of the feathers; lower edge of black chest ill-defined; rest of under parts chestnut rufous, darker than in either *nigripectus* or *pectoralis*, with slight black and white specklings about vent and lower flanks; throat white, sometimes with slight black markings; upper parts slightly more reddish than *pectoralis* and darker than *nigripectus*. The females are similar to females of *C. v. coyolcos*.

Additional material examined.—Oaxaca: Guichicovi, 2.

² *Colinus virginianus insignis* Nelson: The male is nearest to *C. v. ridgwayi*, but darker, with the forehead and forepart of crown blackish; throat and sides of face black, speckled in some individuals with more or less white; rest of under parts hazel with a few black and white spots on lower flanks; upper parts much brighter red and blacker than in *ridgwayi*. The female is darker than that sex in *ridgwayi* with upper parts much grayer (less sandy); under parts much less reddish on chest (more brownish); center of breast and belly buffier.

Additional material examined.—Chiapas: Ocozacautla, 6; Jiquipilas, 1; Comitán, 5; Tuxtla Gutierrez, 4; San Bartolome, 11; San Vicente, 2; Valley of Jiquipilas, 1; Chiapa, 1; Petapa, 2; Hda. La Razon, Valle de Zintalapa, 1.—Guatemala: Nenton, 1.

l.c., 15, pp. 119, 121, 1898 (range); Ogilvie-Grant, Ibis, 1902, p. 241 (crit.).

Ortyx insignis Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 302, 1903—Valley of Comitán, Chiapas, Mexico, and Nenton, Guatemala.

Colinus virginianus insignis Griscom, Bull. Amer. Mus. Nat. Hist., 64, p. 106, 1932 (range in Guatemala); Peters, Bds. World, 2, p. 48, 1934 (range); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 361, 1939—Juncana, Chiapas (crit.).

Range.—The valley of the Rio Chiapas from Nenton, Guatemala, to the western boundary of the State of Chiapas, Mexico (3,000 to 6,000 ft.).

Conover Collection.—8: Mexico, Chiapas (Chicomuselo, Moriscal, 8).

***Colinus virginianus coyolcos* (P. L. S. Müller).¹ COYOLCOS BOB WHITE.**

Tetrao Coyoleos [sic] P. L. S. Müller, Natursyst., Suppl., p. 129, 1776—Mexico, based on "Le Coyolcos" Buffon, Hist. Nat. Ois., 2, p. 486 (ex "Coyolcozque" Hernandez, Hist. Anim. Nov. Hisp., p. 19); Mexico.²

Ortyx coyolcos Gould, Monog. Odont., pl. 6, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 423, 1893; idem, Handb. Game-Bds., 2, p. 144, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 303, 1903—Tehuantepec, Juchitan, Tapana, Santa Efigenia, Cacoprieto, Tonalá, Chiapas.

Colinus coyolcos Allen, Bull. Amer. Mus. Nat. Hist., 1, pp. 276, 289, 1886 (dist. char.); Nelson, Auk, 15, pp. 117, 121, 1898 (range).

Colinus virginianus coyolcos Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 386, 1928—Tapanatepec, Oaxaca; Peters, Bds. World, 2, p. 49, 1934 (range).

Range.—Pacific coast of Oaxaca and Chiapas, Mexico, from the City of Tehuantepec to Tonalá (sea level to 3,000 ft.).

***Colinus virginianus salvini* Nelson.³ SALVIN'S BOB WHITE.**

¹ This race seems to vary a great deal. Two male specimens (Tehuantepec, San Mateo del Mar) have practically no black on the chest, which is cinnamon.

Material examined.—Oaxaca: San Mateo del Mar, 2; Huilotepec, 4; San Gerónimo, 2; La Venta, 1; Tapana, 2; City of Tehuantepec, 2.—Chiapas: Tonalá, 3.

² The application of the name *coyolcos* to the present form is wholly arbitrary. Certain features in Hernandez's cursory description rather point to *C. v. pectoralis*, of Vera Cruz.

³ *Colinus virginianus salvini* Nelson: Darkest of all the known races of *C. virginianus*. The male has the throat, sides of face, including superciliaries, and entire chest black; remainder of under parts dark rufous, the feathers faintly edged or washed with blackish; vent and under tail coverts rufous mottled with black and white; forehead and forepart of crown dull black, hind part of crown dark spotted with white; remainder of upper parts very dark. The females are

Colinus salvini Nelson, Auk, 14, p. 45, 1897- Tapachula, Chiapas, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); idem, l.c., 15, p. 122, 1898 (range); Ogilvie-Grant, Ibis, 1902, p. 241 (crit.).

Ortyx salvini Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 304, 1903 - Chiapas, Tapachula, San Benito.

Colinus virginianus salvini Peters, Bds. World, 2, p. 48, 1934 (range).

Range.—Coastal plains of southern Chiapas, Mexico, near the Guatemalan border.

***Colinus virginianus castaneus* (Gould). GOULD'S BOB WHITE.**

Ortyx castanea Gould, Proc. Zool. Soc. Lond., 10, "1842," p. 182, pub. Feb., 1843—type locality unknown (type in coll. of J. Gould, now in British Museum).

Ortyx castaneus Gould, Monog. Odont., pl. 3, text unpagged, 1850—habitat unknown; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 424, 1893 (desc. and disc.); idem, Handb. Game-Bds., 2, p. 145, 1897 (monog.).

Colinus virginianus castaneus Peters, Bds. World, 2, p. 49 and footnote, 1934 (disc. of possible range).

Range.—Unknown. Described from aviary specimen whose plumage may have been unnatural. There is a possibility that it may have come from some part of Guerrero or Michoacan from which no *Colinus* has ever been reported.

****Colinus nigrogularis nigrogularis* (Gould). BLACK-THROATED QUAIL.**

Ortyx nigrogularis Gould, Proc. Zool. Soc. Lond., 10, "1842," p. 181, Feb., 1843—Mexico=Yucatan (type in coll. of Lord Derby, now in Liverpool Museum);¹ Cabot, Bost. Journ. Nat. Hist., 4, p. 460, 1844—Yucatan; Gould, Monog. Odont., Part 2, pl. 4, 1846—part, Yucatan; Gray and Mitchell, Gen. Bds., p. 514, pl. cxxxii, 1846; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 209, 1869—Mérida, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 461—Chablé, Yucatan.

very dark with practically no rufous in plumage, except for a slight mottling of very dull rufous on the crown.

Comparison of specimens of this race with specimens of *atriceps* which it seems to resemble closely would be interesting.

Material examined.—Chiapas: Tapachula, 10.

¹ Since the volume has been put in press, Van Tyne and Trautmann (Occ. Papers, Mus. Zool. Univ. Mich., 439, pp. 2-6, July 1, 1941) have stated that the type came from Honduras and not Yucatan, which would make *segoviensis* Ridgway a synonym. In this same paper they have named *Colinus nigrogularis persiccus* (p. 4) from 5 kilometers south of Progreso, Yucatan, and *Colinus nigrogularis caboti* (p. 5) from Chichen Itzá, Yucatan. Both types are in the Museum of Zoology, University of Michigan, Ann Arbor. These new races are said to be paler than the typical race, but *caboti* is darker than *persiccus*.

Ortyx nigrigularis Sclater and Salvin, Ibis, 1859, p. 225—part, Yucatan.
Colinus nigrogularis Ridgway, Man. N. Amer. Bds., p. 190, 1887—Yucatan; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 204—south of Izamal, Yucatan; Chapman, Bull. Amer. Mus. N. H., 8, p. 289, 1896—Chichen-Itzá, Yucatan; Nelson, Auk, 15, p. 122, 1898—Yucatan; Griscom, Amer. Mus. Nov., 235, p. 5, 1926—Yucatan.

Eupsychortyx nigrogularis Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 412, 1893—part, spec. d-q, Yucatan (Tizimin, Buctzotz, Chablé, Peto, Mérida); idem, Handb. Game-Bds., 2, p. 133, 1897—part, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 297, 1903—part, Yucatan; Cole, Bull. Mus. Comp. Zool., 50, p. 115, 1906—Chichen-Itzá and Progreso, Yucatan.

Colinus nigrogularis nigrogularis Peters, Bds. World, 2, p. 49, 1934 (range).

Range.—Yucatan Peninsula, Mexico.

Field Museum Collection.—7: Yucatan (Mérida, 2; San Felipe, 1; unspecified, 4).

Conover Collection.—4: Yucatan (Temax, 4).

***Colinus nigrogularis segoviensis* Ridgway.¹ HONDURAN BLACK-THROATED QUAIL.**

Colinus nigrogularis segoviensis Ridgway, Proc. U. S. Nat. Mus., 10, p. 593, 1888—Segovia River, Honduras (type in U. S. National Museum); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 302, 1932—Segovia River; Peters, Bds. World, 2, p. 50, 1934—Caribbean lowlands of Honduras; Van Tyne, Misc. Pub., Mus. Zool. Univ. Mich., 27, p. 12, 1935—Pacomón and La Libertad, Petén, Guatemala (crit.).

Ortyx nigrogularis (not of Gould, 1843) Gould, Monog. Odont., Part 2, text to pl. 4, 1846—part, Honduras; Moore, Proc. Zool. Soc. Lond., 27, p. 63, 1859—pine ridges of Belize.

Ortyx nigrigularis Sclater and Salvin, Ibis, 1859, p. 225—part, pine ridges of Belize.

Eupsychortyx nigrogularis Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 412, 1893—part, spec. a-c, Honduras and British Honduras; idem, Handb. Game-Bds., 2, p. 133, 1897—part, Honduras and British Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 297, 1903—part, British Honduras and Honduras (Segovia River).

Colinus nigrogularis coffini Nelson, Proc. Biol. Soc. Wash., 45, p. 170, 1932—La Libertad, Petén, Guatemala (type in U. S. National Museum); Peters, Bds. World, 2, p. 49, 1934—British Honduras and Petén district.

Range.—Pine-forested parts of British Honduras, the Petén district of northern Guatemala, and through the Caribbean lowlands of Honduras east to the Segovia River.

¹ *Colinus nigrogularis segoviensis* Ridgway: Similar to the nominate race, but smaller and considerably darker, more brownish, in coloration. Van Tyne has shown *C. n. coffini* to be identical with *C. n. segoviensis*. Comparison of a single adult from Petén with another from Honduras by the senior author fails to reveal any noticeable difference.

***Colinus cristatus hypoleucus (Gould). WHITE-BREASTED QUAIL.**

Eupsychortyx hypoleucus Gould, Proc. Zool. Soc. Lond., 28, p. 62, 1860—Acajutla "in Mexico"—El Salvador (type in coll. of J. Verreaux, now in the British Museum);¹ Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 413, 1893—Guatemala (Vera Paz, San Gerónimo); idem, Handb. Game-Bds., 2, p. 134, 1897—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 297, 1903—San Gerónimo, Vera Paz.

Eupsychortyx leucopogon (not *Ortyx leucopogon* Lesson) Sclater and Salvin, Ibis, 1860, p. 277—San Gerónimo, Guatemala.

Colinus hypoleucus Griscom, Amer. Mus. Nov., 379, p. 2, 1929 (crit.).

Colinus leucopogon hypoleucus Dickey and van Rossem, Condor, 32, p. 73, 1930—El Salvador, west of the Lempa River, and Guatemala (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 106, 1932—Progreso, Guatemala; Conover, Condor, 34, p. 175 (in text), 1932—El Salvador (depts. La Paz, Sonsonate, La Libertad, and Santa Ana); Peters, Bds. World, 2, p. 50, 1934 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 151, 1938—El Salvador (Colima, San Salvador, Miraflores, Sonsonate, Lake Channmico, Hacienda Zapotitán, Hacienda Chilata, Volcan de Santa Ana, and Lake Guija).

Range.—El Salvador, west of the Rio Lempa, and adjacent parts of Guatemala (Progreso, upper Motagua Valley, Dept. Jalapa; Salamá and San Gerónimo, Baja Verapaz).²

Field Museum Collection.—16: Guatemala (Salamá, 7); El Salvador (Sitio del Niño, San Salvador, 1; El Tablón, Santa Ana, 4; Colima, Cuscatlan, 3; Sonsonate, 1).

Conover Collection.—3: El Salvador (El Tablón, Santa Ana, 1; Colima, Cuscatlan, 1; San Salvador, 1).

***Colinus cristatus leucopogon (Lesson). WHITE-THROATED QUAIL.**

Ortyx leucopogon Lesson,³ Rev. Zool., 5, p. 175, June, 1842—San Carlos, Central America—La Unión, El Salvador (type in Paris Museum); Des Murs, Icon. Orn., livr. 6, pl. 6, Feb., 1847—San Carlos (descr. and fig. of type);⁴ Dickey and van Rossem, Condor, 32, p. 72, 1930—El Salvador, east of the Rio Lempa (crit.).

¹ The specimen g, purchased of M. Verreaux, though not indicated as such, is doubtless the type.

² *Additional material examined*.—El Salvador: Hacienda Miraflores, Dept. La Paz, 1; Volcan Santa Ana, Dept. Sonsonate, 1; Hacienda Zapotitan, Dept. La Libertad, 1; Sitio del Niño, Dept. La Libertad, 1; El Tablon, Dept. Santa Ana, 5.

³ *Ortyx albifrons* Lesson (Rev. Zool., 5, p. 130, April, 1842) from "San Carlos," which no doubt refers to the same species, has no nomenclatural standing, being a pure nomen nudum.

⁴ The discrepancies between Des Murs's and Gould's figures have been discussed by Dickey and van Rossem, who justly remark that the form of eastern Salvador has a short crest like the neighboring races. *C. c. leucopogon* is nearest

Eupsychortyx leucopogon Gould, Monog. Odont., Part 3, pl. 13, 1850—San Carlos.

Colinus leucopogon leucopogon Conover, Condor, 34, p. 175 (in text), 1932—eastern Salvador (depts. of Morazan and La Unión); Peters, Bds. World, 2, p. 50, 1934 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 148, 1938—El Salvador (Lake Olomega, Rio Goascorán, and Divisadero).

Range.—El Salvador, east of the Rio Lempa (in depts. of Morazan and La Unión).¹

Field Museum Collection.—6: El Salvador (Divisadero, Morazan, 5; Olomega, La Unión, 1).

Conover Collection.—2: Salvador (Divisadero, Dept. Morazan, 1; Rio Goascorán, La Unión, 1).

****Colinus cristatus sclateri* (Bonaparte).² SCLATER'S QUAIL.**

Eupsychortyx sclateri Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, No. 19, p. 883, May 12, 1856; l.c., No. 20, p. 954, May 19, 1856—no locality indicated=western Nicaragua (type in Paris Museum); van Rossem, Bull. Mus. Comp. Zool., 77, p. 486, 1934 (crit.).

Ortyx leylandi Moore, Proc. Zool. Soc. Lond., 27, p. 62, 1859—"Flores³ on the road from Omoa to Comayagua," Honduras (type in coll. of Lord Derby, now in Liverpool Museum); Sclater and Salvin, Ibis, 1859, p. 226—same locality; Taylor, Ibis, 1860, p. 312—near Comayagua, Honduras.

Eupsychortyx leucofrenatus Elliot, Ann. Lyc. Nat. Hist. N. Y., 7, p. 106, pl. 3, 1860—Honduras (type lost, originally in collection of D. G. Elliot).

to the one from Honduras, but more reddish throughout, with the throat white instead of black. Birds from Colima, Dept. Cuscatlan, El Salvador, are intermediate with *C. c. hypoleucus*.

¹ *Additional material examined.*—El Salvador: Divisadero, Dept. Morazan, 6; Rio Goascorán, La Unión, 2.

² *Colinus cristatus sclateri* (Bonaparte) differs from *C. c. leucopogon* mainly in darker, more brownish (less reddish) coloration and black (instead of white) throat and by the more extensive (unspotted) white area in the middle of the breast. As pointed out by van Rossem, who examined the type in the Paris Museum, Bonaparte's name, based on a specimen taken by Delattre somewhere in western Nicaragua, has priority over Moore's *leylandi*.

³ There are two Flores in Honduras, one in the Dept. Gracias (east of Santa Rosa) and another just south of San Antonio, Dept. Comayagua. Which one of the two is the place referred to by Moore cannot be determined without knowing more about Leyland's route, if such information be still obtainable. However, as the present race does not occur anywhere in the Atlantic lowlands of Honduras, where it is clearly replaced by *C. nigrogularis segoviensis*, birds from the highland region round Tegucigalpa may with fair probability be taken to represent what Moore called *leylandi*, although his description, in various respects, is not at all conclusive.

The specimens from Sabana Grande, Tegucigalpa, are intermediate between *leucopogon* and *sclateri*. It is possible that a similar specimen formed the basis for Elliot's *Eupsychortyx leucofrenatus*.

Eupsychortyx leylandi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 411, 1893—part, spec. h-n, Chinandega, Nicaragua; idem, Handb. Game-Bds., 2, p. 132, 1897—part, Honduras and Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 295, 1903—part, descr. and hab. Honduras and Nicaragua (Ocotal, Matagalpa, Chinandega); Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—Granada, western shore of Lake Nicaragua, Nicaragua.

Eupsychortyx lelendi [sic] Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 302, 1932—between Omoa and Comayagua.

Colinus leucopogon leylandi Dickey and van Rossem, Condor, 32, p. 73, 1930—part, western Nicaragua.

Colinus leucopogon leylandi Conover, Condor, 34, p. 175 (in text), 1932—Honduras (Tegucigalpa, Monte Redondo, Comayaguella); Peters, Bds. World, 2, p. 50, 1934 (range).

Range.—Plateau region and Pacific slope of Honduras and Nicaragua.

Field Museum Collection.—14: Nicaragua (San Gerónimo, Chinandega, 14).

Conover Collection.—27: Honduras (Monte Redondo, Tegucigalpa, 16; Comayaguella, 1; El Caliche, Orica, Tegucigalpa, 5; Catacamas, Olancho, 1; Sabana Grande, Tegucigalpa, 4).

**Colinus cristatus dickeyi* Conover.¹ DICKEY'S QUAIL.

Colinus leucopogon dickeyi Conover, Condor, 34, p. 174, July, 1932—Las Cañas, Guanacaste, western Costa Rica (type in Conover Collection, Field Museum of Natural History); Peters, Bds. World, 2, p. 50, 1934 (range).

Ortyx leylandi (not of Moore) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 139, 1868—San José and Barránca, Costa Rica; Frantzius, Journ. Orn., 17, p. 373, 1869—Heredia and Barba, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 42—valley of San José.

Colinus leylandi Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—San José and Alajuela; Cherrie, Auk, 9, p. 329, 1892—San José.

Eupsychortyx leylandi Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 411, 1893—part, spec. a-g, Costa Rica (San José, Irazú); Underwood, Ibis, 1896, p. 449—Miravalles; Ogilvie-Grant, Handb. Game-Bds., 2, p. 132, 1897

¹ *Colinus cristatus dickeyi* Conover: Nearest to *C. c. sclateri*, but differs by having the feathers of the throat white with black edges instead of uniform black; more reddish (less grayish) ground color of the chest; more extensive unspotted area on chest and breast; buffier superciliaries and sides of face; and more heavily marked mantle and inner remiges.

How far this form extends to the north remains to be determined by material from the southwestern section of Nicaragua. We do not see any reason for separating specifically *C. c. dickeyi* and its northern allies from the South American forms, since the characters between these groups are merely differences of degree. Griscom (Amer. Mus. Nov., 379, p. 3, 1929), it will be remembered, already has called attention to certain similarities and the practical identity in the female sex between *C. c. hypoleucus* and *C. c. leucotis*.

—part, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 295, 1903—part, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 386, 1910—Costa Rica (Santo Domingo de San Mateo, Alajuela, San José, Tenorio, Cachí, Miravalles).

Colinus leucopogon leylandi Dickey and van Rossem, Condor, 32, p. 73, 1930—part, Costa Rica.

Range.—Plateau region and Pacific slope of Costa Rica and possibly extreme southwestern Nicaragua.

Field Museum Collection.—8: Costa Rica (Las Cañas, 2; San José, 2; Orósi, 4).

Conover Collection.—13: Costa Rica (Miravalles, Guanacaste, 2; Turrucare, 1; Las Cañas, 5; Volcan Irazú, Cartago, 5).

****Colinus cristatus panamensis* Dickey and van Rossem.¹ PANAMA CRESTED QUAIL.**

Colinus leucotis panamensis Dickey and van Rossem, Condor, 32, p. 73, 1930—Agua Dulce, Coclé, western Panama (type in coll. of D. R. Dickey, now in University of California at Los Angeles, examined).

Eupsychortyx leucotis (not *Ortyx leucotis* Gould) Salvin, Ibis, 1876, p. 379—Veragua (Calobre?) (crit.).

Eupsychortyx leucopogon (not *Ortyx leucopogon* Lesson) Gould, Monog. Odont., Part 3, pl. 13, 1850 (fig. spec. in coll. of F. de Lafresnaye); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 408, 1893—part, spec. p-r, Veragua; idem, Handb. Game-Bds., 2, p. 130, 1897—part, Veragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 295, 1903—part, "Calobre," Veraguas.

Eupsychortyx leucopogon Todd, Auk, 37, p. 203, pl. 5, fig. 4, 1920—western Panama (monog.).

Colinus cristatus panamensis Peters, Bds. World, 2, p. 50, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 303, 1935 (range).

Range.—Pacific lowlands of western Panama in depts. of Coclé, Veraguas, and Chiriquí.

Field Museum Collection.—1: Panama (El Frances, Chiriquí, 1).

Conover Collection.—1: Panama (El Frances, Chiriquí, 1).

¹ *Colinus cristatus panamensis* Dickey and van Rossem: Nearest to, and agreeing with, *C. c. leucotis* in having nearly uniform amber brown superciliaries, but darker throughout; under parts much more reddish, with the light markings reduced to roundish spots; males with more white about the head, the chin and upper throat in particular being soiled white.

C. c. panamensis is much like *C. c. decoratus* above, but differs by having, in the male sex, a much greater expanse of white on the upper throat, much less black-and-white spotting on the chest, and the rufescent buff abdominal patch lighter, while females may be separated by darker, less buffy dorsal surface and much darker under parts with more heavily pronounced barring, particularly on flanks and abdomen.

Additional material examined.—Panama: Agua Dulce, Coclé, 7; La Marca, Veraguas, 2; La Colorada, Santiago, Veraguas, 1; Santa Fé, Veraguas, 1.

Colinus cristatus decoratus (Todd).¹ MAGDALENA CRESTED QUAIL.

Eupsychortyx decoratus Todd, Proc. Biol. Soc. Wash., 30, p. 6, 1917—Calamar, Bolívar, Colombia (type in Carnegie Museum, Pittsburgh, examined).

Eupsychortyx parvicristatus (not of Gould) Heine and Reichenow, Nomencl. Mus. Hein., p. 294, 1887—part, Barranquilla.

Eupsychortyx leucotis (not *Ortyx leucotis* Gould) Robinson, Flying Trip to Tropics, p. 153, 1895—part, Barranquilla.

Colinus cristatus decoratus Chapman, Bull. Amer. Mus. N. H., 36, p. 198, 1917—Calamar and Turbaco, Colombia (crit.); Peters, Bds. World, 2, p. 50, 1934 (range).

Eupsychortyx leucopogon decoratus Todd, Auk, 37, p. 210, pl. 5, fig. 6, 1920—northern Colombia (monog.); idem and Carriker, Ann. Carnegie Mus., 14, p. 169, 1922—Fundación, Santa Marta region (spec. examined).

Range.—Northern Colombia from the Rio Sinú east to the delta region of the Magdalena River; (?)accidental at the west foot of the Santa Marta Mountains (Fundación).

***Colinus cristatus badius** Conover.² CAUCA VALLEY CRESTED QUAIL.

Colinus cristatus badius Conover, Proc. Biol. Soc. Wash., 51, p. 53, March 18, 1938—El Tambo, Cauca, Colombia (type in Conover Collection, Field Museum of Natural History).

Eupsychortyx leucotis (not *Ortyx leucotis* Gould) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 544—Medellin, Colombia (eggs descr.).

Eupsychortyx leucopogon (not *Ortyx leucopogon* Lesson) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 408, 1893—part, spec. l-o, Medellin; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 295, 1903—part, Colombia (Antioquia).

Colinus cristatus leucotis Chapman, Bull. Amer. Mus. N. H., 36, p. 199, 1917—part, Caldas (Rio Dagua), Cali (Cauca), and La Sierra (Cauca), Colombia; Peters, Bds. World, 2, p. 50, 1934 (range in part).

¹ *Colinus cristatus decoratus* (Todd): Very similar to *C. c. leucotis*, but more richly colored throughout; superciliary streak of males heavily variegated with black, as also the malar stripe; throat darker, rich chestnut; the breast very nearly as dark as the throat, with the white spots smaller; sides and flanks heavily marked with chestnut; female more heavily marked below, the throat more decidedly tinged with buffy, and more heavily streaked with blackish. A single male from Fundación is typical of the race.

Material examined.—Colombia: Barranquilla, 2; Cartagena, 1; Calamar, Bolívar, 8; Fundación, 1.

² *Colinus cristatus badius* Conover: Nearest to *C. c. leucotis*, but much darker above, even more deeply colored than *panamensis*; males with throat slightly lighter, chest darker, and abdominal patch lighter, as well as less extensive; under parts of females having a more black and white appearance, with the buffy abdominal patch very light, almost obsolete. Compared to *decoratus* and *panamensis*, the males are much less reddish on throat and chest.

Additional material examined.—Colombia: Caldas, Rio Dagua, 1; Cali, Cauca, 1; Medellin, Cauca, 1.

Eupsychortyx leucopogon leucotis Todd, Auk, 37, p. 207, 1920—part, Cauca Valley.

Range.—Tropical and Subtropical zones of the Cauca Valley, western Colombia.

Conover Collection.—22: Colombia (El Tambo, Cauca, 21; Popayán, Cauca, 1).

****Colinus cristatus leucotis* (Gould). WHITE-EARED CRESTED QUAIL.**

Ortyx leucotis Gould, Proc. Zool. Soc. Lond., 11, "1843," p. 133, pub. March, 1844—"Santa Fé de Bogotá,"¹ Colombia (type probably in the British Museum);² G. R. Gray, List Spec. Bds. Brit. Mus., 5, p. 77, 1867—Bogotá.

Eupsychortyx leucotis Gould, Monog. Odont., Part 1, pl. 10, 1844—"Santa Fé de Bogotá"; Sclater, Proc. Zool. Soc. Lond., 23, p. 163, 1865—"Bogotá"; Robinson, Flying Trip to Tropics, pp. 101, 153, pl., 1895—part, Guaduas and Honda, Magdalena Valley, Colombia.

Eupsychortyx leucopogon (not *Ortyx leucopogon* Lesson) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 408, 1893—part, spec. a-k, Colombia ("Bogotá"); idem, Handb. Game-Bds., 2, p. 130, 1897—part, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 295, 1903—part, Colombia ("Bogotá").

Colinus cristatus leucotis Chapman, Bull. Amer. Mus. N. H., 36, p. 199, 1917—part, El Eden (central Andes), Chicoral, Honda, and Purificación (upper Magdalena), Fusugasugá, Anolaima, El Carmen, and El Alto de la Paz (eastern Andes), Colombia; Peters, Bds. World, 2, p. 50, 1934 (range in part).

Eupsychortyx leucopogon leucotis Todd, Auk, 37, p. 207, pl. 5, fig. 5, 1920—part, Magdalena Valley, Colombia.

Range.—Tropical and Subtropical zones of the middle and upper Magdalena Valley, Colombia.³

Field Museum Collection.—1: Colombia (Honda, Magdalena River, 1).

Conover Collection.—2: Colombia (Aguachica, Dept. Magdalena, 1; Peña Blanca, Santander, 1).

****Colinus cristatus littoralis* (Todd).⁴ LITTORAL CRESTED QUAIL.**

¹ Honda, upper Magdalena River, suggested as type locality by Chapman (Bull. Amer. Mus. N. H., 36, p. 199, 1917).

² Though not indicated as such, one of the specimens from the Gould Collection (e-g, of *E. leucopogon*) is probably the type.

³ Birds from the Magdalena Valley agree with native "Bogotá" skins.

Additional material examined.—Colombia: El Eden, East Quindío Andes, 1; Chicoral, Coello River, Tolima, 2; Honda, 5; Aguachica, Magdalena, 1; Anolaima, 1; Fusugasugá, 1; El Alto de la Paz, Cundinamarca, 5.

⁴ *Colinus cristatus littoralis* (Todd): Very close to *C. c. decoratus*, but males paler, with the throat less chestnut, ochraceous-tawny to amber brown, and

Eupsychortyx littoralis Todd, Proc. Biol. Soc. Wash., 30, p. 6, 1917—Mamatoco, Santa Marta, Colombia (type in Carnegie Museum, Pittsburgh, examined).

Eupsychortyx leucopogon (not *Ortyx leucopogon* Lesson) Allen, Bull. Amer. Mus. N. H., 13, p. 127, 1900—Bonda, Colombia.

Eupsychortyx leucopogon littoralis Todd, Auk, 37, p. 211, pl. 5, fig. 7, 1920—Santa Marta region (monog.); idem and Carriker, Ann. Carnegie Mus., 14, p. 168, 1922—Bonda, Cacagualito, Mamatoco, Gaira, and Santa Marta.

Colinus sonnini decoratus (not *Eupsychortyx decoratus* Todd) Darlington, Bull. Mus. Comp. Zool., 71, p. 370, 1931—Rio Frio, Donjaca, Sevillano, and Aracataca, Magdalena, Colombia.

Colinus cristatus littoralis Peters, Bds. World, 2, p. 51, 1934 (range).

Range.—Tropical zone at the north and west foot of the Santa Marta Mountains, northern Colombia.

Conover Collection.—4: Colombia, Santa Marta (Rio Frio, 2; Cacagualito, 1; Mamatoco, 1).

**Colinus cristatus cristatus* (Linnaeus). CRESTED QUAIL.

Tetrao cristatus Linnaeus, Syst. Nat., 12th ed., 1, p. 277, 1766—based on “La Caille hupée du Mexique” Brisson, Orn., 1, p. 260, pl. 25, fig. 2; “Guiana” (type in coll. of Mr. Aubry).¹

Ortyx Temminckii Stephens, in Shaw, Gen. Zool., 11, (2), p. 381, 1819—new name for *Tetrao cristatus* Linnaeus.

Ortyx noxenus Vigors, Proc. Comm. Sci. Corresp. Zool. Soc. Lond., 1, “1830,” p. 3, pub. Jan. 6, 1831—“northern parts of America” (type living in the Zoological Society Gardens, now lost; cf. Gould, Monog. Odont., Part 2, text to pl. 9, 1846).

the breast also paler, less russet; female likewise slightly paler and less spotted below.

There is some individual variation in this form. An adult male from Bonda approaches *decoratus* in chestnut throat and more reddish chest, while another from the same locality is a typically pale *littoralis*. Two male specimens from Rio Frio, Magdalena, also show all the characteristics of the littoral race; curiously enough, a single male from Fundación is typical of *decoratus*.

C. c. littoralis comes very close to *C. c. leucotis*, but is paler above, especially in the female sex. While females of the two races are about the same underneath, males have the abdominal patch darker rufescent, the reddish gular area somewhat lighter as well as less extensive, and the superciliary stripe mottled with black.

Additional material examined.—Colombia: Mamatoco, 7; Bonda, 3.

¹ As has been explained at length by Berlepsch (Journ. Orn., 40, p. 100, 1892), Brisson's description, while not very definite, seems to correspond much better to the present form than to *C. c. sonnini*, since the upper part of the head, the crest, and the throat are called “fauve,” although no mention is made, either in the text or in the figure, of the rufous abdominal patch, so characteristic a feature in the quail which naturalists have been designating by the name *cristatus*. If we are right in our identification of “La Caille hupée du Mexique,” the locality Guiana attached to Aubry's specimen forming the basis of Brisson's account must have been erroneous—*C. c. sonnini* being the only representative of the group in French and British Guiana—and Mr. Peters (Bds. World, 2, p. 51, 1934) has, accordingly, suggested the island of Curaçao as an appropriate type locality.

Eupsychortyx cristatus Gould, Monog. Odont., Part 2, pl. 9, 1846—"Mexico" (errore); Berlepsch, Journ. Orn., 40, p. 98, 1892—Savonet, Curaçao (crit.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 407, 1893—Curaçao and Aruba; Hartert, Ibis, 1893, pp. 305, 325—Aruba and Curaçao (crit.); Ogilvie-Grant, Handb. Game-Bds., 2, p. 128, 1897 (monog.); Hartert, Nov. Zool., 9, p. 306, 1902—Aruba and Curaçao; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 198, 204, 253, 1909—Aruba and Curaçao.

Eupsychortyx gouldi Berlepsch, Journ. Orn., 40, p. 100 (in text), 1892—Savonet, Curaçao (provisional new name).

Eupsychortyx cristatus continentis Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 283, May 31, 1913—El Panorama, Rio Aurare (about fifteen miles east of Maracaibo), Zulía, Venezuela (type in Field Museum of Natural History).

Eupsychortyx cristatus cristatus Todd, Auk, 37, p. 214, pl. 5, fig. 8, 1920—Venezuela, Curaçao, and Aruba (monog.); idem and Carriker, Ann. Carnegie Mus., 14, p. 168, 1922—Rio Hacha and Fonseca, Colombia.

Colinus (Eupsychortyx) cristatus Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 32, 1922—Maracaibo, Altagracia, Rio Aurare, Rio Cogollo, and Valera, Zulía, Venezuela (crit.).

Colinus cristatus cristatus Peters, Bds. World, 2, p. 51, 1934 (range).

Range.—Tropical zone of northeastern Colombia (La Goajira and Rio Rancheria Valley, on the east side of the Santa Marta Mountains) and northwestern Venezuela (in states of Falcon, Lara, and Zulía); islands of Aruba and Curaçao.¹

Field Museum Collection.—20: Venezuela (Rio Aurare, Zulía, 4); Aruba, 11; Curaçao, 5.

Conover Collection.—9: Venezuela (Maracaibo, 2; Altagracia, Zulía, 2; Rio Cogollo, Zulía, 3; Valera, 2).

**Colinus cristatus horvathi* (Madarász).² HORVATH'S QUAIL.

Eupsychortyx horvathi Madarász, Ann. Mus. Nat. Hung., 2, p. 116, pl. 12, 1904—"Perigosa" [=Pedregosa], near Mérida, Venezuela (type in Hungarian National Museum, Budapest).

Eupsychortyx cristatus horvathi Todd, Auk, 37, p. 219, 1920—Mérida (monog.).

Colinus (Eupsychortyx) horvathi Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 33, 1922—Rio Chamá and Mérida (crit.).

Colinus cristatus horvathi Peters, Bds. World, 2, p. 51, 1934 (range).

¹ Birds from continental Venezuela (*continentis*) do not seem to be distinguishable by any constant characters from those of the Dutch West Indies. Specimens from Valera approach *C. c. horvathi* in the paler coloration of the upper surface, while those from La Goajira form the passage to *C. c. littoralis*.

² *Colinus cristatus horvathi* (Madarász): Nearest to *C. c. cristatus*, but with decidedly heavier bill; dorsal surface much grayer, with hardly any rufescent tinge; under parts much paler, with the shaft-stripes on sides and flanks darker; throat of females heavily streaked with black.

Additional specimens examined.—Venezuela, Mérida: Pedregosa, 1; Alto de Estanques (alt. 800 meters), 1.

Range.—Subtropical zone of the Andes of Mérida, western Venezuela.

Field Museum Collection.—1: Venezuela (Mérida, 1).

Conover Collection.—5: Venezuela (Rio Chamá, near Mérida, 4; Mérida, 1).

***Colinus cristatus sonnini** (Temminck). SONNINI'S CRESTED QUAIL.

Perdix sonnini Temminck, Hist. Nat. Fig. Gall., 3, p. 451, 1815—no locality stated, but evidently French Guiana (cotypes in coll. of J. C. Temminck, now probably in Leiden Museum).

Perdix sonninii Temminck, Hist. Nat. Fig. Gall., 3, p. 737, 1815—French Guiana; idem, Nouv. Rec. Pl. Col., livr. 13, pl. 75, 1821.

(?)*Ortyx affinis* Vigors, Proc. Comm. Sci. Corresp. Zool. Soc. Lond., 1, "1830," p. 3, pub. Jan. 6, 1831—"northern parts of America" (descr. of female; type lost, formerly in coll. of Zoological Society of London; cf. Gould, Monog. Odont., Part 3, p. 16, 1850).¹

Perdix cristata (not *Tetrao cristatus* Linnaeus) Schomburgk, Reisen Brit. Guiana, 1, p. 394, 1847—Pirara.

Ortyx cristatus Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 747, 1849—savannas of British Guiana; C. B. Brown, Canoe and Camp Life Brit. Guiana, p. 268, 1876—savanna near Quatata (Pirara).

Eupsychortyx cristatus Salvin, Ibis, 1886, p. 175—British Guiana (ex Schomburgk).

Eupsychortyx sonninii(i) Gould, Monog. Odont., 3, pl. 11, 1850—Guiana, Caracas, Rio Branco, and "the southern parts of Mexico"; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 378—St. Thomas (introduced); Newton, Ibis, 1860, p. 308—St. Thomas; Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 252—plain of Valencia, Venezuela; Cory, Auk, 4, p. 225, 1887—St. Thomas (descr.); idem, Bds. W. Ind., p. 224, 1889—St. Thomas; idem, Cat. W. Ind. Bds., p. 96, 1892—St. Thomas; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 409, 1893—Brazil (Forte do Rio Branco), British Guiana (Quonga), Venezuela (Caracas), and Mustique Island; idem, Handb. Game-Bds., 2, p. 130, 1897 (monog.); Berlepsch and Hartert, Nov. Zool., 9, p. 121, 1902—Altagracia, Rio Orinoco, Venezuela; Hartert, l.c., p. 275, 1902—St. Thomas; Clark, Proc. Bost. Soc. N. H., 32, pp. 246, 305, 1905—Mustique Island, Grenadines (introduced); Ihering, Cat. Faun. Braz., 1, p. 17, 1907—Venezuela, Guiana, Rio Branco, and "Rio Negro" (errore); Berlepsch, Nov. Zool., 15, p. 296, 1908—"Cayenne," French Guiana (ex Sonnini);² Penard, Vog. Guyana, 1, p. 310, 1908—

¹ The type has disappeared. Gould, who had examined it in the Zoological Society's Collection, considered it very close to *C. c. sonnini*, from which he found it to differ by smaller size, notably shorter tail, paler coloration, and by having some black marks on the throat. Its habitat is said to be "Mexico."

² "La Caille de Cayenne" J. J. Virey, in Buffon, Hist. Nat. Gén. et Part., éd. Sonnini, 43, pp. 133-136, and ix, where a good description of the bird is given from Sonnini's observations in various parts of French Guiana.

Dutch Guiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 357, 1916—lower and middle Orinoco, Venezuela; Chubb, Bds. Brit. Guiana, 1, p. 31, 1916—Takutú Mountains, Abary River, Great Savannas, Quonga, Cotinga River, and Rupununi Savannas.

Ortyx sonnini Reinhardt, in Newton, Ibis, 1861, p. 114—St. Thomas (crit.); Pelzeln, Orn. Bras., 3, p. 290, 1870—Forte do São Joaquim, Rio Branco, Brazil.

Eupsychortyx sonnini sonnini Todd, Auk, 37, p. 194, pl. 5, figs. 1, 2, 1920—part, Venezuela (Caracas, Naguanagua, El Trompillo; Agua Salada de Ciudad Bolívar, Altigracia, and San Mateo de Caicara, Orinoco River; Maripa, Caura; San German de Upata), British Guiana, Surinam (Paramaribo), Brazil (Serra da Lua), and St. Thomas (monog.); Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 331, 1927—St. Thomas.

Colinus cristatus sonnini Peters, Bds. World, 2, p. 51, 1934 (range, in part).

Range.—French, Dutch, and British Guiana, and the adjacent section of northern Brazil (upper Rio Branco), west through Venezuela in the Orinoco basin and north to Caracas and Carabobo in the coast region; introduced on Mustique Island, Grenadines, and in St. Thomas, Virgin Islands.¹

Field Museum Collection.—7: Brazil (Serra da Lua, 3; Bõa Vista, Rio Branco, 1); British Guiana (Corentyne River, 2); Venezuela (Caracas, 1).

Conover Collection.—3: Brazil (Serra da Lua, Rio Branco, 1); Venezuela (El Trompillo, Carabobo, 2).

****Colinus cristatus parvicristatus* (Gould).² SHORT-CRESTED QUAIL.**

Ortyx parvicristatus Gould, Proc. Zool. Soc. Lond., 11, p. 106, 1843—Santa-Fé-de-Bogotá, Colombia (type in coll. of J. Gould, now probably in the British Museum).

Eupsychortyx parvicristatus Gould, Monog. Odont., Part 2, pl. 12, 1846—Colombia; Selater, Proc. Zool. Soc. Lond., 23, p. 163, 1855—Bogotá; Pelzeln, Ibis, 1875, p. 331—"Spanish Guiana"—Bogotá (spec. examined); Heine and Reichenow, Nomencl. Mus. Hein., p. 294, 1887—part, Bogotá; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 410, 1893—Bogotá; idem, Handb. Game-Bds., 2, p. 131, 1897—Bogotá.

¹ *Additional material examined.*—French Guiana: unspecified, 1.—British Guiana: Quonga, 4.—Brazil: Forte do São Joaquim, Rio Branco, 8.—Venezuela: Altigracia, Orinoco, 6; plain of Valencia, 4; Galipán, Cerro del Avila, above Caracas, 1.

² *Colinus cristatus parvicristatus* (Gould), though rejected by Todd, seems to be after all maintainable by reason of its larger size, shorter and darker crest, darker auriculars and upper parts, as well as heavier black markings both above and below.

The characters hold in a series of nine native Bogotá skins, when compared to an ample series of *sonnini*, excepting one male from Altigracia, Orinoco, which is almost indistinguishable from the Colombian individuals.

Colinus cristatus parvicristatus Chapman, Bull. Amer. Mus. N. H., 36, p. 199, 1917—Fomeque and Quetame, Colombia (crit.).

Eupsychortyx sonnini sonnini (not *Perdix sonnini* Temminck) Todd, Auk, 37, p. 174, 1920—part, Colombia (Bogotá; Fomeque; Palmar, Boyacá).

Colinus cristatus sonnini Peters, Bds. World, 2, p. 51, 1934—part, Colombia.

Range.—Tropical zone at the eastern base of the eastern Andes of Colombia (Palmar, Boyacá; Fomeque and Quetame, east of Bogotá; Villavicencio).

Field Museum Collection.—1: Colombia ("Bogotá," 1).

Conover Collection.—1: Colombia (Villavicencio, Meta, 1).

****Colinus cristatus mocquerysi* (Hartert).¹ MOCQUERY'S QUAIL.**

Eupsychortyx mocquerysi Hartert, Bull. Brit. Orn. Cl., 3, p. xxxvii, 1894—Cumaná [Dept. Sucre], Venezuela (type in Tring Collection, now in the American Museum of Natural History, New York, examined); idem, Nov. Zool., 1, p. 675, pl. 15, fig. 2, 1894—vicinity of Cumaná; Ogilvie-Grant, Handb. Game-Bds., 2, p. 131, 1897—Cumaná.

Eupsychortyx pallidus Richmond, Proc. U. S. Nat. Mus., 18, p. 657, 1896—Margarita Island, Venezuela (type in U. S. National Museum); Clark, Auk, 19, p. 260, 1902—Margarita Island; Lowe, Ibis, 1907, p. 551—Margarita Island; idem, Ibis, 1909, p. 322—Cariaco Peninsula, Venezuela; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 238, 1909—Margarita Island (crit.).

Eupsychortyx sonnini (not *Perdix sonnini* Temminck) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 378—part, Cumaná; Phelps, Auk, 14, p. 367, 1897—Cumanacoa and San Antonio [Bermúdez], Venezuela; Ogilvie-Grant, Ibis, 1902, p. 239—part, Margarita Island.

Eupsychortyx sonnini mocquerysi Todd, Auk, 37, p. 201, pl. 5, fig. 3, 1920—Margarita Island and Cariaco, Venezuela (monog.).

Colinus cristatus mocquerysi Peters, Bds. World, 2, p. 51, 1934 (range).

Range.—Northeastern Venezuela, in State of Sucre, and Margarita Island.

Field Museum Collection.—8: Venezuela (Cocollar, Sucre, 2; Margarita Island, 6).

Conover Collection.—1: Venezuela (Margarita Island, 1).

¹ *Colinus cristatus mocquerysi* (Hartert): Very close to *C. c. sonnini*, but crest paler and longer; breast of males brighter (vinaceous to chestnut) and abdomen with less rufous; females rather whiter, less buffy below.

This is rather an unsatisfactory race, though the decidedly longer crest in both sexes would seem to distinguish it. The other characters are not very pronounced, and we cannot confirm the supposedly paler coloration of the upper parts. As pointed out by Cory, the strikingly pale coloration of the type of *E. pallidus*, taken in July, is due to its worn, faded condition, since February and March specimens obtained by Ferry on Margarita Island are very much darker. Birds from northeastern Venezuela and Margarita seem to be alike.

Additional specimens examined.—Venezuela: near Cumaná, 2; Cumanacoa, 1; Cariaco Peninsula, 1; Margarita Island, 4.

Genus ODONTOPHORUS Vieillot

Odontophorus Vieillot, Anal. Nouv. Orn. Elém., p. 51, April, 1816—type, by monotypy, "Tocro" Buffon=*Tetrao gujanensis* Gmelin; idem, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 177, 1819 (full characterization).

Dentophorus "Vieillot" Boie, Isis, 21, col. 326, 1828 (evidently lapsus for *Odontophorus*).

Strophiorityx Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 883, 1856—type, by subs. desig. (Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 430, 1893), *Odontophorus columbianus* Gould.

****Odontophorus gujanensis castigatus* Bangs.¹ CHIRIQUÍ
PARTRIDGE.**

Odontophorus castigatus Bangs, Auk, 18, p. 356, 1901—Divalá, Chiriquí, Panama (type in coll. of E. A. and O. Bangs, now in the Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 160, 1930); idem, Proc. New Eng. Zool. Cl., 3, p. 22, 1902—Bugaba, Chiriquí; idem, Auk, 24, p. 291, 1907—Boruca and El Pózo de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 386, 1910—Sabanilla, El Pózo de Térraba, and Boruca, Costa Rica (crit.).

Odontophorus marmoratus (not of Gould) Salvin, Proc. Zool. Soc. Lond., 1870, p. 218—Bugaba, Chiriquí; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Las Trojas and Pózo Azul de Pirris, Costa Rica; Cherrie, Anal. Inst. Fis.-Geogr. Mus. Nac. Costa Rica, 4, p. 146, 1893—Boruca and Buenos Aires, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 309, 1903—part, Costa Rica and Chiriquí (Bugaba).

[*Odontophorus gujanensis*] subsp. a. *O. marmoratus* Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 433, 1893—part, spec. b, c, Bugaba, Chiriquí.

Odontophorus gujanensis castigatus Peters, Bds. World, 2, p. 51, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 303, 1935—western Chiriquí.

Range.—Tropical zone of southwestern Costa Rica and extreme western Panama (Bugaba and Divalá, Chiriquí).

Field Museum Collection.—2: Costa Rica (Buenos Aires, 1; Boruca, 1).

Conover Collection.—10: Costa Rica (Buenos Aires, 1; Volcan de Oso, 3; El General, 1; San Gerónimo, 3; Savanillas de Pirris, 1; Alto de Javillo, 1).

****Odontophorus gujanensis marmoratus* (Gould). MARBLED
PARTRIDGE.**

Ortyx (*Odontophorus*) *marmoratus* Gould, Proc. Zool. Soc. Lond., 11, p. 107, 1843—Santa-Fé-de-Bogotá, Colombia (type in the British Museum).

Odontophorus gujanensis (not *Tetrao gujanensis* Gmelin) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 301, 1861—Panama Railroad.

¹ *Odontophorus gujanensis castigatus* Bangs: Similar to *O. g. marmoratus*, but much darker, more olivaceous throughout; crest and pileum dark brown instead of light chestnut; throat and chest much darker and less grayish; hind neck and

- Odontophorus marmoratus* Gould, Monog. Odont., p. 22, 1850—Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, p. 163, 1855—Bogotá; idem and Salvin, l.c., 1864, p. 371—Lion Hill, Panama; idem, l.c., 1879, p. 545—Remedios, Antioquia, Colombia (eggs descr.); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 10, 1899—Rio Lara, Darien; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 309, 1903—part, Panama (Chepo, Lion Hill); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 214, 1906—savanna of Panama.
- [*Odontophorus guianensis*] subsp. a. *O. marmoratus* Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 433, 1893—part, spec. a, d-o, Panama (Chepo, Lion Hill) and Colombia (Remedios, Bogotá); idem, Handb. Game-Bds., 2, p. 153, 1897—part, Panama and Colombia.
- Odontophorus guianensis marmoratus* Chapman, Bull. Amer. Mus. N. H., 36, p. 200, 1917—part, Puerto Valdivia, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 242, 1918—Gatún, Panama; Chubb, Ibis, 1919, p. 26—Colombia (crit.); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, pl. 1 (upper fig.), 1922; Chapman, Amer. Mus. Nov., 380, p. 3, 1929—Venezuela (Santa Elena, head of Maracaibo), Colombia (El Tambor, Santander; Palmar, Boyacá; Puerto Valdivia and Murindo, Antioquia; Saotata, Rio Atrato), and Panama (crit.); Griscom, Bull. Mus. Comp. Zool., 72, p. 319, 1932—Obaldia, Permé, and Ranchon, eastern Panama (crit.); idem, l.c., 78, p. 313, 1935—Panama.
- Odontophorus guianensis panamensis* Chapman, Bull. Amer. Mus. N. H., 34, p. 363, May 27, 1915—Panama Railroad line (type in the American Museum of Natural History, New York); Chubb, Ibis, 1919, p. 26—Lion Hill, Panama (cotypes in British Museum); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 195, 1922—Mount Sapo and Jesuquito, Darien.
- Odontophorus guianensis canescens* (not *O. parambae canescens* Chapman, 1921) Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 27, pl. 1 (lower fig.), 1922—Rio Cogollo, Perija, Zulia, Venezuela (type in Conover Collection, Field Museum of Natural History).
- Odontophorus guianensis polionotus* Osgood and Conover, Auk, 44, p. 561, 1927—new name for *O. guianensis canescens* Osgood and Conover, pre-occupied.
- Odontophorus guianensis chapmani* Griscom, Bull. Mus. Comp. Zool., 69, p. 153, April, 1929—Cana, eastern Panama (type in Museum of Comparative Zoology, Cambridge, Mass.).
- Odontophorus guianensis marmoratus* Peters, Bds. World, 2, p. 52, 1934—Canal Zone of Panama to Colombia.
- Odontophorus guianensis polionotus* Peters, Bds. World, 2, p. 52, 1934—Venezuela.

Range.—Tropical zone of Panama, from the Canal Zone eastwards, and south through Antioquia to the Magdalena Valley and upper back dark olivaceous rather than grayish and nearly concolor with the rest of the upper parts.

Three specimens from Chiriquí (Bugaba) and five additional ones from southwestern Costa Rica (Térraba Valley) examined.

the adjacent parts of northwestern Venezuela (Rio Cogollo and Santa Elena, south of Lake Maracaibo, State of Zulia).¹

Conover Collection.—13: Panama, Darien (Port Obaldia, 11; Permé, 1); Venezuela (Rio Cogollo, Zulia, 1).

****Odontophorus gujanensis gujanensis* (Gmelin). GUIANAN PARTRIDGE.**

Tetrao gujanensis Gmelin, Syst. Nat., 1, (2), p. 767, 1789—based principally on "Guiana Partridge" Latham, Gen. Syn. Bds., 2, (2), p. 776; Cayenne or Guiana.²

Perdix dentata Temminck, Hist. Nat. Pig. Gall., 3, pp. 419, 734, 1815—French Guiana (two specimens) and "Brazil" [=lower Amazon] (one spec.) (cotypes in coll. of C. J. Temminck).

Odontophorus rufus Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 34, p. 178, 1819—part, descr. and hab. Guiana; idem and Oudart, Galerie Ois., 2, p. 38, pl. 211, 1825.

Perdix rufina Spix, Av. Spec. Nov. Bras., 2, p. 60, pl. 76b, 1825—"in sylvis fl. Amazonum" (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 698, 1906).

Odontophorus guianensis Gould, Monog. Odont., Part 1, pl. 23, 1844—Cayenne, Guiana, Surinam, and "Trinidad" (errore); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 747, 1848—British Guiana; Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 591—Capim River, Pará, Brazil; Pelzeln, Orn. Bras., 3, p. 289, 1870—part, Borba (Rio Madeira), Pará, Barra do Rio Negro [=Manáos], São Pedro (Rio Negro), and western Matto Grosso (Forte do Principe da Beira and São Vicente, Rio Guaporé); Allen, Bull. Essex Inst., 8, p. 82, 1875—Santarém, Brazil; C. B. Brown, Canoe and Camp Life British Guiana, p. 373, 1876—Wahmarra Mountains, upper Demerara River (nest descr.); Salvin, Ibis, 1886, p. 175—Bartica Grove, Merumé Mountains, and Camacusa, British Guiana; Riker and Chapman, Auk, 8, p. 162, 1891—Santarém, Brazil; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 432, 1893—British Guiana (Demerara, Bartica Grove,

¹ Dr. Chapman has shown that there is but one race inhabiting Colombia (excepting the Caquetá region) and the Maracaibo basin of Venezuela, its earliest name being *marmoratus* of Gould. Panama specimens, which have been described by three different authors, cannot satisfactorily be separated either, although their strange local variability has not yet been fully explained. For a statement of the rather complicated case the reader is referred to Chapman's enlightening account (Amer. Mus. Nov., 380, pp. 4-6, 1929).

Additional material examined.—Venezuela: Santa Elena, Zulia, 1.—Colombia: Bogotá, 4; Remedios, 1.—Panama: Rio Lara, 1; Chepo, 2; Lion Hill, 6.

² Gmelin's diagnosis is compiled from Latham's description, which, aside from the "red warty excrescences round the eyes" and the "yellow brown legs," corresponds very well to the characters of the Guianan Partridge. Of the two other references quoted by Gmelin, "Le Tocco ou Perdrix de la Guyane" of Buffon (Hist. Nat. Ois., 4, p. 518, 1778) is not identifiable with certainty from the short account ("... un peu plus gros que notre perdrix grise, et son plumage est d'un brun plus foncé; du reste il lui ressemble..."), whereas "The Partridge in Guiana" of Bancroft (Essay Nat. Hist. Guiana, p. 177, 1769), described as being "near twice as large" as the European Partridge, can hardly refer to the present species.

Camacusa, Merumé Mountains) and Brazil (Manáos, Capim River); idem, Handb. Game-Bds., 2, p. 152, 1897 (monog.); Goeldi, Ibis, 1903, p. 499—Capim River, Brazil; Berlepsch, Nov. Zool., 15, p. 296, 1908—Cayenne; Chubb, Bds. Brit. Guiana, 1, p. 33, 1916—many localities; Beebe, Trop. Wild Life, 1, p. 127, 1917—Bartica, British Guiana.

Odontophorus gujanensis Hellmayr, Nov. Zool., 12, p. 304, 1905—Igarapé-Assú, Pará; Ihering, Cat. Faun. Braz., 1, p. 17, 1907 (range).

Odontophorus marmoratus (not of Gould) Snethlage, Journ. Orn., 56, p. 516, 1908—Villa Braga, Rio Tapajóz; idem, Bol. Mus. Goeldi, 8, p. 59, 1914—Rio Tocantins (Mazagão), Rio Tapajóz (Villa Braga, Boim), and Rio Jamauchim (Santa Elena), Brazil.

Odontophorus gujanensis gujanensis Hellmayr, Nov. Zool., 17, p. 417, 1910—Santa Isabel, Rio Preto, Brazil; idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 80, 97, 1912—Ipinga (Rio Acará) and Peixe-Boi, Pará (crit., Pará localities); Peters, Bds. World, 2, p. 52, 1934 (range).

Odontophorus guianensis rufinus Chubb, Ibis, 1919, pp. 25, 28—lower Amazons (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 65, 1930—western Matto Grosso; Peters, Bds. World, 2, p. 52, 1934 (range).

Odontophorus guianensis guianensis Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 40, 1918—Javaweg, Surinam; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, pl. 1 (middle fig.), 1922.

Range.—French, Dutch and British Guiana, and northern Brazil, from the Pará region on both sides of the Amazon west to the Rio Negro, the Rio Manacapurú, and Rio Madeira, south to northwestern Matto Grosso.¹

¹ Further subdivision appears to be impracticable. Chubb revived Spix's name *rufina* for the birds of Lower Amazonia, said to be distinguishable by paler, grayish rather than "dark rufous brown," lower back and rump, and referred to this supposed form an adult male from the Capim River, Pará, and a female from "Barra do Rio Negro" [=Manáos]. To start with, we will say that in none of the numerous specimens from Guiana and Amazonia which we have examined can the lower back and rump be called "dark rufous brown." The tone of these parts varies from isabella color or tawny olive to Brussels brown frequently more or less suffused with grayish, this area being either plain or spotted with black to a variable degree. Birds from French Guiana and Manáos are quite alike in this respect, and there is no possible doubt about the inhabitants of the north bank of the Amazon being typical *gujanensis*. There remains only the question of whether those from south of the Amazon can be differentiated. With five skins from the Pará district before him, the senior author is unable to find any constant character by which to tell them from the northern series with the possible exception that they average slightly *darker* on the rump. With the available material we do not see how *rufinus* can be maintained.

Of particular interest is an adult male from São Pedro (right bank of upper Rio Negro) in the Vienna Museum. This bird has more rufous on the head than any other specimen, the whole throat down to the foreneck and the entire sides of the head being bright rufous chestnut. In the extent of rufous on the throat it is approached by two British Guianan birds and one from Pará, but no other specimen lacks the buff patch on the upper auriculars. The São Pedro male thus diverges widely from *O. g. buckleyi* in the coloration of the head, but, besides being more heavily spotted on the rump, has the black barring below strongly pronounced, more like the Ecuadorian form. Two skins from Manaca-

Field Museum Collection.—7: British Guiana (above Kaieteur Falls, 3; Mazaruni River, 2; Potaro, 1; Middle Base Camp, Itabu Creek, upper New River, 1).

Conover Collection.—25: British Guiana (Rockstone, Essequibo River, 2; Oko Mountains, Essequibo, 2); Brazil (Obidos, 1; Lago Cuipeua, Pará, 5; Caxiricatuba, Rio Tapajóz, 4; Tauary, Rio Tapajóz, 1; Boim, Rio Tapajóz, 3; Buenos Aires, Rio Acará, 1; Tomé-assú, Rio Acará, 4; Resacca, Rio Capim, 1; Rio Manacapurú, Amazonas, 1).¹

***Odontophorus gujanensis medius* Chapman.² DUIDA
PARTRIDGE.**

Odontophorus gujanensis medius Chapman, Amer. Mus. Nov., 380, p. 3, 1929—Caño Secco, Mount Duida, Venezuela (type in the American Museum of Natural History, New York); Peters, Bds. World, 2, p. 52, 1934—southern Venezuela.

Odontophorus gujanensis (not *Tetrao gujanensis* Gmelin) Pelzeln, Orn. Bras., 3, p. 289, 1870—part, Cocuy, Rio Negro, and Rio Uaupés, Brazil (spec. examined).

Odontophorus gujanensis(?) Berlepsch and Hartert, Nov. Zool., 9, p. 121, 1902—Suapuré, Caura River, Venezuela (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 357, 1916—Suapuré.

purú examined by the junior author have the same amount of rufous about the head but otherwise resemble typical *gujanensis*.

Additional material examined.—British Guiana: Bartica Grove, 1; Camacusa, 1; Demerara, 2.—French Guiana: Saint Laurent du Maroni, 1; Cayenne, 3.—Brazil: Manacapurú, 1; São Pedro, Rio Negro, 1; Manáos, 6; Pará, 1; Rio Capim, 1; Peixe-Boi, 2; Ipitinga, Rio Acará, 2; Santa Isabel, Rio Preto, 1; Forte do Principe, Rio Guaporé, Matto Grosso, 1.

¹ Pinto (Rev. Mus. Paul., 23, p. 542, 1938) has recently separated birds from Manacapurú (and Rio Tapajóz: Santarém, Aveiro) as *O. g. snethlagei* (type in Museu Paulista). The principal difference is said to be the brighter red throat. As this, at least in birds from the Rio Tapajóz, appears to be an individual variation, the race would not seem to be

² *Odontophorus gujanensis medius* Chapman: Somewhat intermediate between *gujanensis* and *buckleyi*, combining the bright ochraceous-tawny under parts of the former with the grayish throat and sides of the head of the latter.

Two specimens from the uppermost stretches of the Rio Negro, near the Venezuelan boundary, are evidently referable to this recently separated race. Both have the throat gray, the cheeks and auriculars more buffy grayish, the whole being indistinctly barred with dusky, less conspicuously than in *marmoratus*. The female from Cocuy is bright ochraceous-tawny below with mere traces of obsolete wavy lines, exactly as in numerous specimens from Guiana and Manáos; whereas the male from the Rio Uaupés is dull Dresden brown coarsely banded with black, closely resembling *buckleyi*. While we have not been able to re-examine the Suapuré (Caura) specimen, Hellmayr's notes on its color characters, notably grayish, dusky-mottled sides of face and throat, render its pertinence to the present form more than probable. This surmise has since been confirmed by Mr. J. T. Zimmer (in litt.).

Material examined.—Brazil: Cocuy, Rio Negro, 1; Rio Uaupés, 1.

Range.—Southern Venezuela (Suapuré, Caura Valley; Esmeralda and Mount Duida, upper Orinoco) and the adjacent parts of extreme northwestern Brazil (Cocuy, upper Rio Negro; Rio Uaupés).

****Odontophorus gujanensis buckleyi* Chubb.¹ BUCKLEY'S PARTRIDGE.**

Odontophorus gujanensis buckleyi Chubb, Ibis, (11), 1, p. 27, Jan., 1919—Sarayacu, Ecuador (cotypes in the British Museum); Chapman, Amer. Mus. Nov., 380, p. 4 (in text), 1921—eastern Colombia (Buena Vista, La Morelia), eastern Ecuador (Rio Suno, below San José), Peru (Puerto Indiana), and Brazil (Tonantins, Rio Solimões); idem, Bull. Amer. Mus. N. H., 55, p. 159, 1926—upper Rio Suno, Ecuador (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 355, 1927—Rio Suno, Ecuador.

[*Odontophorus gujanensis*] subsp. *a. O. marmoratus* (not of Gould) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 433, 1893—part, spec. p, q, Sarayacu, Ecuador; idem, Handb. Game-Bds., 2, p. 153, 1897—part, Ecuador.

Odontophorus marmoratus Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 39, 1900—Rio Zamora, Ecuador.

Odontophorus gujanensis marmoratus Chapman, Bull. Amer. Mus. N. H., 36, p. 200, 1917—part, La Morelia (Caquetá) and Buena Vista, Colombia.

Odontophorus gujanensis buckleyi Peters, Bds. World, 2, p. 52, 1934 (range).

Range.—Tropical zone of southeastern Colombia (eastern base of eastern Andes) south through eastern Ecuador to the north bank of the Rio Marañón (Puerto Indiana) and Rio Solimões (Tonantins) in northern Peru and northwestern Brazil.

Conover Collection.—20: Ecuador (Concepción, 5; Lagarto Yacu, 2; Ouca Yaco, Loreto, 3; Sara-Yaco, Rio Bobonaza, 4; headwaters of Rio Tigre, 6).

****Odontophorus gujanensis pachyrhynchus* Tschudi.² THICK-BILLED PARTRIDGE.**

Odontophorus pachyrhynchus Tschudi, Arch. Naturg., 10, (1), p. 306, 1844—Peru (type in Neuchâtel Museum); idem, Unters. Faun. Peru., Aves, p. 282, 1846—eastern slope of the Peruvian Andes from 4,000 to 7,000 feet; Gould, Monog. Odont., Part 3, pl. 24, 1850—Peru (fig. of cotype);

¹ *Odontophorus gujanensis buckleyi* Chubb: Similar to *O. g. gujanensis*, but sides of head and throat grayish or grayish buff without any rufous, and under parts duller, less ochraceous, ranging from gray to Dresden brown, with the dusky cross-marks more heavily pronounced.

Additional material examined.—Ecuador: Sarayacu, 1; Rio Zamora, 1; Rio Suno, 2.—Brazil: Tonantins, Rio Solimões, 3.

² *Odontophorus gujanensis pachyrhynchus* Tschudi: Similar to *O. g. gujanensis* in having the chin, cheeks, and upper throat rufous chestnut, but slightly darker above; darker and more barred below; and bill decidedly deeper.

The single specimen examined has the rufous of the throat just as extended as the male from São Pedro, Rio Negro, discussed under *O. g. gujanensis*.

Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 558—Monterico; idem, Orn. Pér., 3, p. 287, 1886—Monterico.

[*Odontophorus guianensis*] subsp. *a. O. marmoratus* (not of Gould) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 433, 1893—part, spec. r, Peru (one of Tschudi's cotypes); idem, Handb. Game-Bds., 2, p. 153, 1897—part, Peru.

Odontophorus guianensis pachyrhynchus Chubb, Ibis, 1919, pp. 27, 29—Peru (crit.); Chapman, Amer. Mus. Nov., 380, p. 4 (in text), 1921—Chanchamayo, Peru (crit.).

Odontophorus gujanensis pachyrhynchus Peters, Bds. World, 2, p. 53, 1934 (range).

Range.—Tropical zone of central eastern Peru, in depts. of Junín (Chanchamayo) and Ayacucho (Monterico).

Field Museum Collection.—1: Peru (Chanchamayo, 1).

****Odontophorus gujanensis simonsi* Chubb.¹ SIMONS'S PARTRIDGE.**

Odontophorus guianensis simonsi Chubb, Ibis, (11), 1, p. 26, Jan., 1919—San Ernesto, near Mapiri, Bolivia (type in the British Museum).

Odontophorus marmoratus (not of Gould) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 641—Yuyo, Yungas of La Paz, Bolivia.

[*Odontophorus guianensis*] subsp. *a. O. marmoratus* Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 433, 1893—part, spec. s, Yuyo; idem, Handb. Game Bds., 2, p. 153, 1897—part, Bolivia.

Odontophorus gujanensis simonsi Peters, Bds. World, 2, p. 53, 1934 (range).

Range.—Tropical zone of eastern Bolivia (Yuyo, La Paz; San Ernesto, Mapiri, Beni; Buenavista, Rio Surutú and San Carlos, Santa Cruz).

Conover Collection.—4: Bolivia, Santa Cruz (Buenavista, 1; Rio Surutú, 1; San Carlos, 2).

****Odontophorus capueira capueira* (Spix). CAPUEIRA PARTRIDGE.**

Perdix capueira Spix, Av. Nov. Spec. Bras., 2, p. 59, pl. 76a, 1825—"in sylvis Rio de Janeiro et Minas Geraes proximis" (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 698, 1906).

Perdix guianensis (not *Tetrao gujanensis* Gmelin) Wied, Reise Bras., 1, pp. 251 (8vo ed., p. 249), 326 (8vo ed., p. 323), 1820—Rio Mucuri (near Lagõa d'Arara) and Rio Belmonte, Bahia; idem, l.c., 2, p. 125, 1821—Rio Salgado, affluent of the Ilhéos, Bahia.

¹ *Odontophorus gujanensis simonsi* Chubb differs from the other races by lighter and more grayish coloration; the upper parts gray mottled with buff; auriculars dusky; sides of face reddish.

Two additional specimens from Buenavista examined.

Ortyx capistrata Jardine and Selby, *Illust. Orn.*, 1, pl. 38, April, 1828—"South America" (type in coll. of W. Jardine, present whereabouts unknown).

Perdix dentata (not of Temminck) Lichtenstein, *Verz. Doubl. Berliner Mus.*, p. 63, 1823—São Paulo; Wied, *Beitr. Naturg. Bras.*, 4, (2), p. 486, 1833—southern Bahia (Rio Mucurí, Alcobaça, Rio Belmonte, Rio Ilhéos).

Odontophorus dentatus Gould, *Monog. Odont.*, Part 2, pl. 26, 1846—Brazil (monog.); Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 333, 1856—Nova Friburgo, Rio de Janeiro, and Lagõa Santa, Minas Geraes; Pelzeln, *Orn. Bras.*, 3, p. 289, 1870—Rio de Janeiro (Rio de Janeiro, road from Sapitiba to Piehy), São Paulo (Casa Pintada, Ypanemá), and Paraná (Curitiba); Reinhardt, *Vidensk. Medd. Naturhist. Foren.*, 1870, p. 52—Minas Geraes (Lagõa Santa, Sumidouro, Lagõa dos Pitos, Curvelho); Berlepsch, *Journ. Orn.*, 21, p. 251, 1873—Blumenau, Santa Catharina; Cabanis, *l.c.*, 22, p. 230, 1874—Cantagallo, Rio de Janeiro; Berlepsch and Ihering, *Zeits. Ges. Orn.*, 2, p. 179, 1885—Taquara and Arroio Grande, Rio Grande do Sul.

Odontophorus capueira Ogilvie-Grant, *Cat. Bds. Brit. Mus.*, 22, p. 154, 1893—Bahia, "Rio Claro (Goyáz)," São Paulo, Casa Pintada, and Rio Grande do Sul; idem, *Handb. Game-Bds.*, 2, p. 154, 1897 (monog.); Salvadori, *Boll. Mus. Zool. Torino*, 10, No. 208, p. 23, 1895—San Joaquin, Paraguay; Ihering, *Annuario Est. Rio Grande do Sul*, 16, p. 147, 1899—Mundo Novo, Rio Grande do Sul; idem, *Rev. Mus. Paul.*, 3, p. 407, 1899—São Paulo; idem, *l.c.*, 4, p. 163, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; idem, *Cat. Faun. Braz.*, 1, p. 18, 1907—São Paulo (Ypiranga) and Rio Grande do Sul (Novo Hamburgo); Lüderwaldt, *Zool. Jahrb. (Syst.)*, 27, p. 338, 1909—Serra do Itatiaya, Rio de Janeiro; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 23, p. 286, 1912—Villa Rica, Paraguay; idem, *Bol. Soc. Physis*, 1, p. 252, 1913—Santa Ana and Bonpland, Misiones; Bertoni, *Anal. Soc. Cient. Arg.*, 75, p. 68, 1913—Alto Parana; idem, *Faun. Parag.*, p. 36, 1914—Alto Paraná; Ménégau, *Rev. Franc. d'Orn.*, 112, p. 289, 1918—Villa Lutetia, near San Ignacio, Misiones; Miranda-Ribeiro, *Arch. Mus. Nac. Rio de Janeiro*, 24, p. 253, 1923—Mont-Serrat, Serra do Itatiaya; Sztolerman, *Ann. Zool. Mus. Pol. Hist. Nat.*, 5, p. 115, 1926—Fazenda Durski, Vermelho, and Candido de Abreu, Paraná; Holt, *Bull. Amer. Mus. N. H.*, 57, p. 281, 1928—Serra do Itatiaya, Rio de Janeiro; Pinto, *Rev. Mus. Paul.*, 17, (2), p. 709, 1932—Santa Anna do Paranyhyba, Matto Grosso.

Odontophorus capueira capueira Peters, *Bds. World*, 2, p. 53, 1934 (range); Krieg and Schuhmacher, *Verh. Orn. Ges. Bay.*, 21, p. 10, 1936—Nueva Germania and Villarica, Paraguay.

Range.—Eastern Brazil, from southern Bahia south to Rio Grande do Sul, and the adjacent parts of Argentina (Misiones) and Paraguay,¹ west to Matto Grosso (Santa Anna do Paranyhyba).

¹ No authentic record exists for Uruguay, though Tremoleras (El Hornero, 4, p. 17, 1927) lists *O. capueira* as probably occurring in the Dept. of Tacuarembó (hearsay report).

Additional material examined.—Brazil: Rio Jordão, Prov. Araguay, Minas Geraes, 3; Braço do Sul, near Victoria, Espírito Santo, 2; Rio de Janeiro, 2; Sapitiba, Rio de Janeiro, 1; Ypanemá, São Paulo, 3; Curucutú, Serra do Mar, São Paulo, 1; Jaraguá, Santa Catharina, 4.

Field Museum Collection.—1: Argentina (Santa Ana, Misiones, 1).

Conover Collection.—14: Brazil (Fazenda Cayoá, Rio Paranapanema, São Paulo, 3; Desterro, Santa Catharina, 2; Ararangua, Santa Catharina, 2); Argentina (Santa Ana, Misiones, 5); Paraguay (Santa Barbara, 2).

****Odontophorus capueira plumbeicollis* Cory.¹ CEARÁ**

PARTRIDGE.

Odontophorus plumbeicollis Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 294, 1915—Serra de Baturité, Ceará, Brazil (type in Field Museum of Natural History).

Odontophorus capueira plumbeicollis Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 474, 1929—Serra de Baturité (crit.); Peters, Bds. World, 2, p. 53, 1934 (range).

Range.—Northeastern Brazil, in State of Ceará (Serra de Baturité).

Field Museum Collection.—1: Brazil (Serra de Baturité, Ceará).

***Odontophorus erythrops verecundus* Peters.² HONDURAN**

PARTRIDGE.

Odontophorus melanotis verecundus Peters, Bull. Mus. Comp. Zool., 69, p. 404, Oct., 1929—Lancetilla, Honduras (type in the Museum of Comparative Zoology, Cambridge, Mass.); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 301, 1932—Lancetilla.

Odontophorus erythrops verecundus Peters, Bds. World, 2, p. 53, 1934—Lancetilla.

Range.—Caribbean slope of Honduras (Lancetilla).

****Odontophorus erythrops melanotis* Salvin.³ BLACK-EARED**

PARTRIDGE.

¹ *Odontophorus capueira plumbeicollis* Cory: Exceedingly close to the nominate race, but differs by having the foreneck and throat vermiculated with blackish (instead of plain gray), the breast tinged with pale buffy brownish, the rufous frontal band and superciliaries somewhat narrower, and the hind neck almost devoid of light markings.

The unique type is in rather poor condition. Though we cannot match it in the large series of typical *capueira*, the validity of the form needs corroboration by additional material.

² *Odontophorus erythrops verecundus* Peters: "Similar to *O. e. melanotis*, but slightly grayer above, especially the upper back; black markings on scapulars and interscapulars less pronounced; less freckling on wing coverts; below, the dark bars on the tibiae obsolete, the light interspaces wider and paler." (Peters, l.c.)

Known from a single female, the type.

³ *Odontophorus erythrops melanotis* Salvin differs from the nominate race chiefly by having the entire pileum and crest (not only the forehead and superciliaries) rufous, this area being also darker, chestnut rather than Sanford's brown; the cheeks and auriculars fuscous instead of Sanford's brown; the throat duller,

Odontophorus melanotis Salvin, Proc. Zool. Soc. Lond., 1864, p. 586—Tucurríqui, Costa Rica (type in Salvin-Godman Collection, now in British Museum, examined); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 140, 1868—Tucurríqui; Frantzius, Journ. Orn., 17, p. 374, 1869—Costa Rica; Salvin, Ibis, 1872, pp. 313, 323—Chontales, Nicaragua; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Jiménez, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 524, 1893—Rio Escondido, Nicaragua; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 435, 1893—part, spec. a-d, Nicaragua (Chontales) and Costa Rica (Tucurríqui); idem, Handb. Game-Bds., 2, p. 155, 1897—part, Nicaragua and Costa Rica; Underwood, Ibis, 1896, p. 449—Miravalles, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 310, pl. 73, 1903—part, Nicaragua and Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 387, 1910—Costa Rica (Bonilla, (?)Talamanca, Jiménez, Carrillo, Tenorio, Guápiles, Guácimo, Cuábre, Rio Sicsola, El Hogar).

Odontophorus melanotis melanotis Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 207, 1932—Great Falls (Pis Pis River) and between Eden and Miranda, Nicaragua (descr. of young).

Odontophorus erythrops melanotis Peters, Bds. World, 2, p. 53, 1934 (range).

Range.—Tropical zone of Nicaragua, northern and eastern Costa Rica.

Conover Collection.—5: Costa Rica (Volcan Miravalles, 3; Cerro Santa María, Guanacaste, 1; Villa Quesada, Alajuela, 1).

****Odontophorus erythrops coloratus* Griscom.¹ VERAGUAN PARTRIDGE.**

more of a brownish black; the under parts decidedly lighter rufous inclining to tawny; and by lacking the white, black-tipped jugular band. The crest-feathers are frequently, though not always, tipped with dusky brown.

Of two sexed females, one (from Miravalles) has the throat just as brownish black as the males, while in another (from Rio Coco) the throat is browner, nearest to chestnut brown, and the cheeks and auriculars are rufous like the crown.

Additional material examined.—Nicaragua: Chontales, 1; Rio Escondido, 2; Santa Cruz, 1; Rio Coco, 3.—Costa Rica: Tucurríqui, 1; Miravalles, 1; unspecified, 1.

¹ *Odontophorus erythrops coloratus* Griscom: Similar to *O. e. melanotis*, but pileum decidedly brighter (wholly uniform) rufous (Burnt Sienna); upper parts much darker, sepia brown; under surface deeper rufous. Otherwise like *melanotis*, viz., cheeks and auriculars fuscous with some chestnut mottling; throat dull blackish, and no trace of white-and-black-tipped jugular band.

A single adult male collected by E. Arcé in Veragua is below fully as deeply Burnt Sienna (inclining to chestnut) as *O. e. parambae*, and its upper parts, in intensity of coloration, match the darkest specimens from Paramba. The *Obaldia* bird is also dark rufous underneath and, like the Veraguan skin, has no brownish tips to the crest-feathers. The westward extension of its range remains to be determined. According to Carriker, a single female from Talamanca differs from all other Costa Rican birds by much brighter rufous pileum, one of the supposed characteristics of the Veraguan form. Whether birds from southeastern Costa Rica are actually referable to *O. e. coloratus* or merely intergrades can only be decided by the study of an adequate series.

From the specimens in the Conover Collection this does not seem to be a very distinctly marked race.

Odontophorus melanotis coloratus Griscom, Amer. Mus. Nov., 280, p. 3, 1927—Guaval, Rio Calovévora, western Veragua (type in the American Museum of Natural History, New York); idem, Bull. Mus. Comp. Zool., 78, p. 303, 1935—Caribbean slope of western Panama.

Odontophorus melanotis (not of Salvin, 1864) Salvin, Proc. Zool. Soc. Lond., 1870, p. 161—"Santiago" de Veragua; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 435, 1893—part, spec. e, Veragua; idem, Handb. Game-Bds., 2, p. 155, 1897—part, Veragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 310, 1903—part, "Santiago," Veraguas; (?) Carriker, Ann. Carnegie Mus., 6, p. 387, 1910—part, Talamanca, Costa Rica.

Odontophorus melanotis coloratus Peters, Bull. Mus. Comp. Zool., 71, p. 297, 1931—Boquete Trail, Guábo, and Cricamola, Almirante Bay, Panama (crit.).

Odontophorus erythrops coloratus Peters, Bds. World, 2, p. 53, 1934 (range).

Range.—Tropical zone of Panama (Almirante Bay region; Rio Calovévora and Santa Fé, Veraguas; Obaldia, Darien) and probably southeastern Costa Rica (Talamanca).

Conover Collection.—3: Panama (Cricamola, Bocas del Toro, 2; Port Obaldia, Darien, 1).

****Odontophorus erythrops parambae* Rothschild.¹ PARAMBA PARTRIDGE.**

Odontophorus parambae Rothschild, Bull. Brit. Orn. Cl., 7, p. vi, 1897—Paramba, Prov. Imbabura, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York, examined); Hartert, Nov. Zool., 5, p. 505, pl. 3, fig. 1, 1898—Paramba (eggs descr.); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 39, 1900—Rio Peripa, Ecuador; Hartert, Nov. Zool., 9, p. 600, 1902—Rio Verde, Paramba, Lita, and Pambilár, Ecuador; Ogilvie-Grant, Ibis, 1902, p. 244—Paramba, Ecuador, and Antioquia, Colombia; Chapman, Bull. Amer. Mus. N. H.,

¹ *Odontophorus erythrops parambae* Rothschild: Very close to *O. e. erythrops*, but ground color of upper parts decidedly darker, rich brown instead of grayish brown, with the light markings on wing coverts and inner secondaries darker, ochraceous rather than buff; bill generally slightly smaller; size on average less. Wing, 132–145; tail, 45–55; bill, 18–19; depth at base, 10½–12.

As pointed out by Chapman, there is no constant difference between Colombian specimens (*baliolus*) and others from northern Ecuador. The amount of light mottling on the upper parts as well as the intensity of the chestnut rufous color underneath are subject to considerable individual variation. A single specimen from Puerto Valdivia, Antioquia, is a good average example of *parambae*, and can be matched by numerous Ecuadorian skins. It shows no trace of white on the sides of the throat, whereas in two females from northern Ecuador (Paramba and San Javier) a white malar streak is suggested by small dots. Birds from Manabí (Rio Peripa) and Pichincha appear to be inseparable from a series collected at Paramba. It is very curious that the present form has never been compared by anyone with *O. erythrops*, from which it merely differs by slight color characters and generally smaller bill.

Additional material examined.—Colombia: Puerto Valdivia, Antioquia, 1.—Ecuador: Paramba, Prov. Imbabura, 8; San Javier, Prov. Esmeraldas, 2; Rio Peripa, Prov. Manabí, 6; Gualea, Prov. Pichincha, 4; Monji, 2.

36, p. 200, 1917—Bagado, Baudo Mountains, and Barbacoas, Colombia (crit.); Chubb, Ibis, 1919, p. 29—Gualea, Ecuador (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Gualea, below Mindo, and Santo Domingo de los Coronados, Ecuador (descr. of young).

Odontophorus baliolus Bangs, Proc. Biol. Soc. Wash., 23, p. 71, 1910—Naranjito, Rio Dagua, western Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 161, 1930).

Odontophorus parambae parambae Chapman, Bull. Amer. Mus. N. H., 55, p. 160, 1926—part, Esmeraldas, below Gualea, below Mindo, and Pato de Pájaro, Ecuador; Peters, Bds. World, 2, p. 54, 1934 (range in part).

Range.—Tropical and lower Subtropical zones of Pacific Colombia (east to the lower Cauca) and Ecuador from the headwaters of the Rio Atrato south to Manaví (Cerro de Pato de Pájaro, Rio Guaque; Rio Peripa) and Pichincha (Mindo, Gualea, Santo Domingo de los Colorados).

Conover Collection.—18: Colombia (La Costa, El Tambo, Cauca, 5; Rio Michenque, El Tambo, 2); Ecuador (Bulún, 2; Paramba, 1; Rio Durango, 1; Santo Domingo, 1; Pacto, 3; Milpe Mindo, Pichincha, 3).

***Odontophorus erythrops erythrops* Gould.¹ CHESTNUT-EARED PARTRIDGE.**

Odontophorus erythrops Gould, Proc. Zool. Soc. Lond., 27, p. 99, 1859—Pallatanga, Ecuador (type in coll. of J. Gould, now in British Museum, exam-

¹ *Odontophorus erythrops erythrops* Gould appears to be the southern race named *O. parambae canescens* by Chapman. Three of Fraser's original specimens from Pallatanga (two in the British Museum, the third in the Heine Collection) and a male each from Balzar and Chimbo show all the specific characters of *O. parambae*, but may be separated from a topotypical series of the latter by paler, grayish brown rather than rich (rufescent) brown ground color of the upper parts, with lighter, buffy instead of ochraceous markings to wing coverts and inner secondaries, and somewhat stouter bills, hence exactly in the way that *canescens* is said to differ from North Ecuadorian birds. We are at a loss to understand why neither Rothschild nor Ogilvie-Grant nor Chubb, all of whom had access to the type, ever referred to *O. erythrops*, when dealing with *O. parambae*. We are fully aware that Chapman assigns other limits to the two races found in western Ecuador, and restricts *canescens* to the extreme southwestern section (El Oro and Loja). In thus disposing of the case, he was probably influenced by the proportions of his specimens, which indicate a much greater difference in size between the two forms than actually exists. A series of nine skins from Paramba gives the latitude of variation in the length of the wing as ranging from 132 to 145, while five from Pallatanga, Balzar, and Chimbo measure from 144 to 150 mm. From a combination of Chapman's measurements with our own figures it results that the actual difference in size amounts to very little, and if we are to continue to distinguish two races in western Ecuador, their limits should be regulated by color characters rather than by the exceedingly variable proportions. Birds of the Chimbo Valley being fairly separable by paler coloration from those of farther north, we are adopting for them Gould's term *erythrops* and, while the inhabitants of southwestern Ecuador may have developed the racial characters to a higher degree, it seems hardly justifiable to admit a third form under Chapman's name.

Material examined.—Ecuador: Pallatanga, 3; Chimbo, 1; Balzar, 1.

ined);¹ Sclater, l.c., p. 147, 1859—Pallatanga; idem, l.c., 28, p. 72, 1860—Pallatanga (descr. "female"); idem, l.c., p. 298, 1860—Esmeraldas; Berlepsch and Taczanowski, l.c., 1883, p. 576—Chimbo; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 435, 1893—Ecuador (Pallatanga, Balzar, Monji); idem, Handb. Game-Bds., 2, p. 156, 1897—Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 159, 1926—western Ecuador.

Strophiorhynchus erythrops Heine and Reichenow, Nomencl. Mus. Hein., p. 295, 1890—Pallatanga.

Odontophorus parambae canescens Chapman, Amer. Mus. Nov., 18, p. 4, 1921—Alamor, Prov. Loja, Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 160, 1926—El Chiral, Zaruma, and Alamor, Ecuador; Peters, Bds. World, 2, p. 54, 1934 (range).

Odontophorus parambae parambae Chapman, Bull. Amer. Mus. N. H., 55, p. 160, 1926—part, Naráño and Chimbo, Ecuador; Peters, Bds. World, 2, p. 54, 1934 (range in part).

Odontophorus erythrops erythrops Peters, Bds. World, 2, p. 53, 1934 (range).

Range.—Subtropical zone of southwestern Ecuador, from Balzar, the Rio Chimbo, and its tributaries (Rio Coco) south to El Oro and Loja.

**Odontophorus atrifrons atrifrons* Allen.² BLACK-FRONTED PARTRIDGE.

Odontophorus atrifrons Allen, Bull. Amer. Mus. N. H., 13, p. 127, 1900—Valparaiso, Santa Marta region, Colombia (type in the American Museum of Natural History, New York); Ogilvie-Grant, Ibis, 1902, p. 244—Valparaiso (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 169, 1922—Cincinnati, Cerro de Caracas, and Heights of Chirua, Colombia (crit.).

Odontophorus atrifrons atrifrons Peters, Bds. World, 2, p. 54, 1934 (range).

¹ Fraser's original examples are in very poor condition. The type lacks most of the feathering on the lower throat, and it is impossible to say whether it had any white or not. The second Pallatanga specimen also has the throat bare, but the few feathers present (the lowest series of those forming the jugular band) are extensively white at the base and tipped with black (as in specimens of *parambae*). The Balzar bird has the jugular band as distinct as in those from Gualea and Paramba, while there are merely traces of white at the base of some of the jugular feathers in one of the Monji examples. The individual nature of the variation in the width of the white collar is thus established beyond doubt.

² *Odontophorus atrifrons atrifrons* Allen: "Forehead, chin, throat, cheeks, and ear-coverts deep black; top of head and crest dark chestnut brown, passing into rufous on the sides of the ear-coverts; mantle olivaceous gray vermiculated with black; scapulars with the inner vanes black broadly barred and edged with chestnut, with light shaft-stripes, and central portion of outer vane gray, lower back olivaceous brown; the rump and upper tail coverts similar, but darker, with a few blotches of black at the tips of some of the feathers; tail dark brown; the secondaries freckled and indistinctly barred with rusty, the primaries with broad distinct bars of pale rufous on the outer vanes; upper breast similar to the mantle, but varied slightly with buffy white, which takes the form of ill-defined apical spots on the lower border of this area; lower breast ochraceous rufous with indistinct crossbars and shaft-stripes of black; flanks buffy olivaceous brown, with

Range.—Subtropical zone of the Santa Marta Mountains, in northern Colombia.

Conover Collection.—3: Colombia, Santa Marta (Vista Nieve, 1; San Lorenzo, 2).

****Odontophorus atrifrons variegatus* Todd.¹ VARIEGATED PARTRIDGE.**

Odontophorus variegatus Todd, Proc. Biol. Soc. Wash., 32, p. 116, 1919—La Pica, Santander, Colombia (type in the Carnegie Museum, Pittsburgh).

Odontophorus atrifrons variegatus Peters, Bds. World, 2, p. 55, 1934 (range).

Range.—Subtropical zone of the eastern Andes of Colombia (La Pica and Ramirez, Santander).

Conover Collection.—1: Colombia (Ramirez, Santander, 1).

****Odontophorus melanonotus* Gould.² BLACK-BACKED PARTRIDGE.**

Odontophorus melanonotus Gould, Proc. Zool. Soc. Lond., 28, p. 382, 1860—Ecuador (type in coll. of J. Gould, now in British Museum); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 438, 1893—Ecuador ("Rio Napo," errore); idem, Handb. Game-Bds., 2, p. 157, 1897 (monog.); Ménégaux, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B4, pl. 2, 1911—Gualea and Pachijal, Ecuador (descr. female); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 15, 1922—Gualea and Nanegal, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 160, 1926—Gualea and below Mindo; Peters, Bds. World, 2, p. 54, 1934 (range).

Range.—Subtropical zone of western Ecuador.

Conover Collection.—7: Ecuador (Gualea, 1; Pacto, 1; Montes de Saloya, 1; Mindo, 1; San Tadeo, Pichincha, 3).

black crossbars; lower tail coverts black barred and tipped with rufous; bill black; feet dusky horn color. Wing (male), 130; tail, 87; bill, 17." (Allen, l.c.) Females are smaller and much more rufescent below.

¹ *Odontophorus atrifrons variegatus* Todd: Similar to the nominate race, but black of forehead extended over the crown, only the nape being Argus brown; upper parts more buffy, less grayish, especially the mantle; lower breast and abdomen more grayish with the light shaft-spots white or nearly so, instead of deep buffy.

² *Odontophorus melanonotus* Gould, though allied to *O. hyperythrus*, seems to be quite distinct. The upper parts, from forehead to tail coverts, including wing coverts and secondaries, are very dark, being closely and finely vermiculated with blackish and auburn, and wholly lack the large black blotches, ochraceous-tawny spots, and buffy streaks, so conspicuous in the related species. The sides of the head are fully as dark as the crown. Below, throat and chest are bright Sanford's brown as in *O. hyperythrus*, sharply defined posteriorly; breast and abdomen between Dresden brown and Brussels brown closely vermiculated with blackish, these markings becoming evanescent abdominally. Bill quite as large as in Bogotá skins of *O. hyperythrus*.

Additional material examined.—Ecuador: "Rio Napo," 1.

****Odontophorus hyperythrus* Gould.¹ CHESTNUT-THROATED PARTRIDGE.**

Odontophorus hyperythrus Gould, Proc. Zool. Soc. Lond., 25, "1857," p. 223, pub. Jan. 12, 1858—Santa-Fé-de-Bogotá, Colombia (type in coll. of J. Gould, now in the British Museum, examined); Sclater and Salvin, l.c., 1879, p. 545—Santa Elena, Antioquia, Colombia (crit.); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 436, 1893—Santa-Fé-de-Bogotá, Santa Elena, and Concordia, Colombia; idem, Handb. Game-Bds., 2, p. 156, 1897—Colombia (monog.); Piguët, Mém. Soc. Neuchât. Sci. Nat., 5, p. 805, 1914—Angelópolis, near Medellín; Chapman, Bull. Amer. Mus. N. H., 36, p. 200, 1917—Las Lomitas, San Antonio, Cocal, Laguneta, La Candela, and Andalucía, Colombia; Peters, Bds. World, 2, p. 54, 1934 (range).

Odontophorus hypospodius Sclater and Salvin, Nomencl. Av. Neotrop., p. 162, 1873—Antioquia, Colombia (descr. of female; type, from Concordia, in Salvin-Godman Collection, now in British Museum, examined).

Range.—Subtropical zone of Colombia (western, central, and eastern Andes).

Conover Collection.—11: Colombia (Munchique, El Tambo, Cauca, 10; La Plata, Huila, 1).

****Odontophorus speciosus söderströmii* Lönnberg and Rendahl.² SODERSTROM'S PARTRIDGE.**

¹ *Odontophorus hyperythrus* Gould may prove to be a geographical representative of *O. speciosus*, as has been suggested to us by Mr. J. T. Zimmer (in litt.), since the broad rufous superciliaries—forming such a striking character in the adults of the Colombian species—are absent in the immature plumage of both sexes. The adult female, furthermore, is very similar to the same sex of *O. s. söderströmii*, though it has the sides of the head and throat bright Sanford's brown and broad superciliaries of the same color, whereas the available specimens from eastern Ecuador have the cheeks and auriculars fuscous spotted with white, the throat black, and the much narrower superciliaries white, margined and tipped with black.

Birds from Bogotá have considerably larger bills than those from Antioquia.

Additional material examined.—Colombia: "Bogotá," 2; Santa Elena, Antioquia, 3; Concordia, Antioquia, 1.

² *Odontophorus speciosus söderströmii* Lönnberg and Rendahl: Adult male similar to the nominate race, but upper part of the head darker, more chestnut brown; white streaks of the dorsal feathers less distinct, sometimes obsolete; sides of the head including auriculars auburn to chestnut vermiculated or mottled with blackish; throat varying from auburn narrowly barred with black to wholly black. Wing, 140–155, (female) 135; tail, 58–60, (female) 55; bill, 20.

This partridge, of which the senior author has been enabled by Count Gyldenstolpe's courtesy to examine the type, appears to connect the Peruvian *speciosus* with the Colombian *hyperythrus*. The type and a male from Granadillas differ from one of Tschudi's original specimens from Chanchamayo in the British Museum by having the sides of the head and the throat dark rufous (auburn to chestnut, darker than the deep tawny breast) barred or mottled with blackish (instead of uniform dull black).

According to notes supplied by Mr. J. T. Zimmer on the material in the American Museum of Natural History, there is, however, considerable variation in the color of the throat, "which is practically black [as in *speciosus*] in one male, shows merely a touch of rufous in three, and is barred or tipped with rufous in

Odontophorus söderströmi Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 16, 1922—near Napo River (alt. 3,000 to 4,000 ft.), eastern Ecuador (type in Stockholm Museum examined); Gyldenstolpe, l.c., 19, A, No. 1, p. 110, 1926—near Napo River (type listed); Peters, Bds. World, 2, p. 55, 1934—Napo River.

Odontophorus speciosus (not of Tschudi) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 437, 1893—part, descr. of immature male, female, and spec. b, c, Granadillas, Ecuador (spec. examined); idem, Handb. Game-Bds., 2, p. 157, 1897—part, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 39, 1900—San José, Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 159, 1926—eastern Ecuador (Sabanilla, near Archidona, San José, lower Sumaco); Peters, Bds. World, 2, p. 54, 1934—part, Ecuador.

Odontophorus söderströmi Chapman, Bull. Amer. Mus. N. H., 55, p. 161, 1926—Rio Napo (ex Lönnberg and Rendahl).

Range.—Tropical zone of eastern Ecuador (Rio Napo, Cerro Condeja, Granadillas, near Archidona, San José, lower Sumaco, etc.).

Conover Collection.—8: Ecuador (Cerro Condeja, Oriente, 2; Colimba, west of Macas, 4; Cututcu, east of Macas, 2).

***Odontophorus speciosus speciosus* Tschudi.¹ RUFIOUS-BREASTED PARTRIDGE.**

Odontophorus speciosus Tschudi, Arch. Naturg., 9, (1), p. 387, 1843—"in sylvis apud flumina Aynamayo et Chanchomayo" [sic], Dept. Junín, Peru (descr. of male; cotypes in Neuchâtel Museum and in British Museum); idem, l.c., 10, (1), p. 306, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 281, pl. 33 (male), 1846—eastern slope of Peru; Gould, Monog. Odont., Part 3, pl. 25 (male), 1850—Peru (monog.);² Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 558—between Chilpes and San Bartolomé, Peru; idem, Orn. Pér., 3, p. 288, 1886—Chilpes; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 437, 1893—part, descr. of adult male and spec. a, Chan-

three others," while "the auriculars are always more or less rufescent, and never wholly black." The Granadillas male shows the black-and-white superciliaries just as well marked, though somewhat more narrowed in the postocular portion, as in the Chanchamayo bird of *O. speciosus*, whereas in the type of *O. söderströmi* there are but a few tiny streaks along the upper margin of the auriculars to be seen. The Granadillas female has likewise conspicuous black-and-white superciliaries, and the throat, contrary to what obtains in the male sex, is just as distinctly black as in *speciosus*.

Additional material examined.—Ecuador: near Napo River, 1 (the type); Granadillas, 2.

¹ *Odontophorus speciosus speciosus* Tschudi, in the plumage of the adult male, has the throat and sides of the head, including the auriculars, uniform black, while the superciliaries are mottled black and white. The top of the head down to the base of the bill is mars brown. The female is unknown.

Two males from Garita del Sol and one from Chanchamayo, Junín, examined.

² The Derby Museum specimen from Peru [=Bolivia], without white in the superciliary region, mentioned by Gould, may be *loricatus*, but his figure was no doubt drawn from Tschudi's cotype.

chamayo, Peru; idem, Handb. Game-Bds., 2, p. 157, 1897—part, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 46—Garita del Sol, Junín, Peru; Lönnberg, Ibis, 1929, p. 263—Roque, near Moyobamba, Peru (descr. nestling); Peters, Bds. World, 2, p. 54, 1934—part, Peru.

Range.—Tropical zone of Peru (only recorded from Roque, near Moyobamba, and various localities in Dept. Junín).

***Odontophorus speciosus loricatus* Todd.¹ BOLIVIAN PARTRIDGE.**

Odontophorus capistratus (not *Ortyx capistrata* Jardine and Selby) Todd, Proc. Biol. Soc. Wash., 45, p. 215, 1932—Cerro Hosane, Dept. Santa Cruz, Bolivia (descr. of male; type in Carnegie Museum, Pittsburgh).

Odontophorus loricatus Todd, Proc. Biol. Soc. Wash., 45, p. 237, 1932—new name for *O. capistratus* Todd, preoccupied; Seilern, Ann. Naturhist. Mus. Wien, 47, p. 39, 1934—San Gaban, Sierra of Carabaya, Peru (descr. female); Peters, Bds. World, 2, p. 54, 1934—Cerro Hosane.

Range.—Tropical zone of extreme southeastern Peru (San Gaban, Carabaya) and eastern Bolivia (Bueyes and Cerro Hosane, Dept. Santa Cruz).

****Odontophorus strophium* (Gould). GORGETED PARTRIDGE.**

Ortyx (Odontophorus) strophium Gould, Proc. Zool. Soc. Lond., 11, "1843," p. 134, pub. March, 1844—"the southern countries of Mexico," errore,= Bogotá, Colombia (type in coll. of J. Gould, now in British Museum).

Odontophorus strophium Gould, Monog. Odont., Part 1, pl. 31, 1844—"Spanish Main"; Pelzel, Ibis, 1875, p. 331—"Spanish Guiana"—Bogotá (spec. examined); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 442, 1893—Bogotá; idem, Handb. Game-Bds., 2, p. 161, 1897—Colombia (monog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 201, 1917—Subia, near Bogotá; Peters, Bds. World, 2, p. 54, 1934—Bogotá region.

Strophiorityx strophium Heine and Reichenow, Nomencl. Mus. Hein., p. 295, 1890—Bogotá.

Range.—Subtropical zone of the eastern Andes of Colombia (Bogotá region).

Field Museum Collection.—1: Colombia ("Bogotá," 1).

¹ *Odontophorus speciosus loricatus* Todd: Adult male similar to the nominate race, but with a black frontal edge and uniform black superciliaries, there being but a few tiny white streaks above the auriculars; crown of head paler, between raw umber and sepia. Wing (male), 140; tail, 66; bill, 19.

The auriculars, which are stated by the describer to be brown like the crown in his three specimens from Cerro Hosane, are black in the only male, from Bueyes, Dept. Santa Cruz, that we have been able to examine. A female from San Gaban, Sierra de Carabaya, Peru, which we refer to the present form on account of its having a black frontal band, has the under parts dingy slate gray, the feathers with dull cinnamon-brown edges and tips; the foreneck extensively rufous, forming a distinct patch; the flanks and under tail coverts brown barred with blackish and apically edged with buff. The narrow superciliaries are entirely black. Its dimensions are: wing, 135; tail, 63; bill, (about) 18.

****Odontophorus columbianus* Gould.¹ VENEZUELAN PARTRIDGE.**

Odontophorus columbianus Gould, Monog. Odont., Part 1, pl. 30, 1850—Caracas, Venezuela (type in the Leiden Museum); idem, Proc. Zool. Soc. Lond., 18, "1850," p. 94, pub. Mar. 14, 1851—Caracas; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 442, 1893—Venezuela; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 161, 1912—Cumbre de Valencia, Carabobo, Venezuela (crit.); Peters, Bds. World, 2, p. 55, 1934—Venezuela.

Odontophorus colombianus Ogilvie-Grant, Handb. Game-Bds., 2, p. 161, 1897—Venezuela (monog.).

Range.—Subtropical zone of northern Venezuela (La Cumbre de Valencia, Carabobo; Silla de Caracas, Dept. Federal).

Conover Collection.—1: Venezuela (La Cumbre de Valencia, 1).

****Odontophorus leucolaemus* Salvin. BLACK-BREASTED PARTRIDGE.**

Odontophorus leucolaemus Salvin, Proc. Zool. Soc. Lond., 1867, p. 161—Cordillera de Tolé, Veraguas, Panama (type in Salvin-Godman Collection, now in British Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 140, 1868—San José, Costa Rica; Frantzius, Journ. Orn., 17, p. 374, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Calovévora, Veraguas; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Narángo de Cartago, Costa Rica; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 438, 1893—Costa Rica (Dota) and Veraguas (Cordillera de Tolé, Calovévora, Chitrá); idem, Handb. Game-Bds., 2, p. 158, 1897 (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 22, 1902—Boquete and Caribbean slope of Chiriquí, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 311, pl. 74, 1903—Costa Rica and Veraguas; Carriker, Ann. Carnegie Mus., 6, p. 388, 1910—Costa Rica (La Estrella, Volcan de Irazú, Cariblanco, Azahar de Cartago, Tenorio, Cariblanco de Sarapiquí, La Honduras); Peters, Bds. World, 2, p. 55, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935 (range).

Odontophorus smithianus Oberholser, Proc. Biol. Soc. Wash., 45, p. 39, 1932—San Joaquin de Dota, Pacific water-shed, Costa Rica (type in coll. of H. O. Havemeyer, Mahwah, New Jersey).

Odontophorus smithians [sic] Griscom, Auk, 50, p. 298, 1933 (crit.).

Range.—Highlands of Costa Rica and western Panama, east to Veraguas.²

¹ *Odontophorus columbianus* Gould is almost certainly conspecific with *O. strophium*, its chief characteristics being the white, laterally black-barred throat and the duller, less reddish under parts with much larger white spots.

With only three Bogotá skins and two from Venezuela for comparison, we are, however, not in a position to speak confidently on their affinities.

Additional material examined.—Venezuela: Cumbre de Valencia, Carabobo, 1; Caracas, 1.

² Specimens with some black on the throat, reduced white bars on the breast, etc., which have been described as *O. smithianus*, occur in Veragua and Costa Rica alike, and as they are connected by intermediate stages with the white-throated variety they doubtless represent merely an exceedingly dark, melanistic mutation.

Additional material examined.—Panama: Boquete, 2; Veragua, 1.

Conover Collection.—2: Costa Rica (Volcan Irazú, 1; Santa Cruz de Turrialba, 1).

****Odontophorus balliviani* Gould. BALLIVIAN'S PARTRIDGE.**

Odontophorus balliviani Gould, Proc. Zool. Soc. Lond., 14, p. 69, 1846—the forests of Cocapata, Dept. of Cochabamba, Bolivia (type in British Museum); idem, Monog. Odont., Part 3, pl. 29, 1850—Cocapata; Selater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 780, 784—Huasampilla, Dept. Cuzco, Peru; Taczanowski, Orn. Pér., 3, p. 290, 1886—Huasampilla; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 441, 1893—Cocapata and Huasampilla; idem, Handb. Game-Bds., 2, p. 160, 1897 (monog.); Peters, Bds. World, 2, p. 55, 1934 (range).

Range.—Highlands of southeastern Peru (Huasampilla, Dept. Cuzco) and Bolivia (Cocapata, Dept. Cochabamba).

Conover Collection.—2: Bolivia, Cochabamba (Incachaca, 1; Aduana, Incachaca, 1).

****Odontophorus stellatus* (Gould). STARRED PARTRIDGE.**

Ortyx (Odontophorus) stellatus Gould, Proc. Zool. Soc. Lond., 10, "1842," p. 183, pub. Feb., 1843—"Brazil" (cotypes in British Museum).

Odontophorus stellatus Gould, Monog. Odont., Part 2, pl. 27, 1846—Rio Madeira, Brazil; Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 753—Chyavetas, Peru; Pelzeln, Orn. Bras., 3, p. 290, 1870—Rio Madeira (Cachoeira da Bananeira, Borba) and Rio Solimões (Lagã do Manaqueri), Brazil; Selater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 307—Chyavetas and Chamicuros, Peru; Taczanowski, Orn. Pér., 3, p. 289, 1886—Peru (Chyavetas, Chamicuros, Moyobamba, Montaña del Pangoa); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 439, 1893—Rio Madeira (Borba), Ecuador (Rio Napo), and Peru (Chyavetas); idem, Handb. Game-Bds., 2, p. 158, 1897 (monog.); Ihering, Rev. Mus. Paul., 6, p. 451, 1905—Rio Jurua, Brazil; idem, Cat. Faun. Braz., 1, p. 18, 1907—Rio Jurua; Snethlage, Journ. Orn., 56, p. 23, 1908—Uby and Cachoeira, Rio Purús, Brazil; Hellmayr, Nov. Zool., 17, p. 417, 1910—Calama, Rio Madeira, and Jamarýsinho, Rio Machados, Brazil; Snethlage, Bol. Mus. Goeldi, 8, p. 60, 1914—Rio Purús; Chapman, Bull. U. S. Nat. Mus., 117, p. 45, 1921—Rio Cosireni, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 161, 1926—Rio Napo, Ecuador; Naumburg, l.c., 60, p. 66, 1930—northern Matto Grosso; Peters, Bds. World, 2, p. 55, 1934 (range).

Range.—Upper Amazonia, from eastern Ecuador through eastern Peru south to the Urubamba region (Rio Cosireni), and south of the Amazon east to the Rio Madeira, extending in the south to the northern confines of Matto Grosso.¹

¹ *Additional specimens examined*.—Brazil: Lagã do Manaqueri, Rio Solimões, 3; Borba, Rio Madeira, 4; Calama, Rio Madeira, 3; Cachoeira da Bananeira, Rio Mamoré, Matto Grosso, 1; Jamarýsinho, Rio Machados, Matto Grosso, 1.

Conover Collection.—14: Ecuador (Sara-Yaco, Rio Bobonaza, 1; Valladolid, Loja, 2); Brazil (Hyutanahan, Rio Purús, 1; Arimã, Rio Purús, 1; Canutama, Rio Purús, 4; Labrea, Rio Purús, 1; Igarapé do Gordão, Rio Juruá, 2; João Pessoa, 1); Peru (Calleria Ravine, Loreto, 1).

****Odontophorus guttatus guttatus* (Gould). SPOTTED PARTRIDGE.**

Ortyx guttata Gould, Proc. Zool. Soc. Lond., 5, "1837," p. 79, pub. Feb. 13, 1838— "Bay of Honduras" (descr. of female; cotypes in coll. of Zoological Society of London, now in British Museum).

Odontophorus guttatus Gould, Monog. Odont., Part 2, pl. 28, 1846—Redondo River, Honduras (descr. of male); Sclater, Proc. Zool. Soc. Lond., 24, p. 309, 1856—Córdoba, Vera Cruz; idem, l.c., 27, p. 391, 1859—Teotalcingo, Oaxaca; Sclater and Salvin, Ibis, 1859, p. 226—"Coban" [=Cahoon] palm ridges, Honduras, and "Yucatan"; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 140, 1868—Dota, Costa Rica; Frantzius, Journ. Orn., 17, p. 374, 1869—Dota and Candelaria, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 218—Volcan de Chiriquí, Panama; Sumichrast, La Naturaleza, 2, p. 37, 1870—Vera Cruz; Boucard, Proc. Zool. Soc. Lond., 1878, p. 42—Curriadabat, near San José, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Costa Rica (Sarchí de Alajuela, El Zárzero de Alajuela, Alajuela); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 439, 1893—Mexico (Córdoba; Chimalapa, Oaxaca), Guatemala (Vera Paz, Dueñas, Volcan de Fuego, Volcan de Agua), British Honduras (San Felipe, Belize), Honduras, Costa Rica (Barranca, Dota), and Chiriquí; idem, Handb. Game-Bds., 2, p. 159, 1897 (monog.); idem, Ibis, 1902, p. 244 (crit.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 22, 1902—Boquete and Volcan de Chiriquí, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 311, 1903—Mexico (Vera Cruz) to Chiriquí; Carriker, Ann. Carnegie Mus., 6, p. 389, 1910—Costa Rica (La Estrella de Cartago, Irazú, Azahar de Cartago); Griscom, Bull. Amer. Mus. N. H., 64, p. 109, 1932—Secanquim, Guatemala (crit.); Peters, Bds. World, 2, p. 55, 1934 (range, crit.); Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Volcan de Chiriquí; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 12, 1935—Uaxactun, Petén, Guatemala; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 361, 1939—Santa Rosa, Chiapas.

Odontophorus veraguensis Gould, Proc. Zool. Soc. Lond., 24, p. 107, 1856—"Veragua"—Boquete, near David, Chiriquí (cotypes in coll. of J. Gould, now in British Museum);¹ Sclater, l.c., p. 143, 1856—Boquete, Chiriquí; Salvin, l.c., 1867, p. 161—"Panama" and "David"; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 140, 1868—Costa Rica (Dota, Barranca, Las Cruces de Candelaria); Frantzius, Journ. Orn., 17, p. 374, 1869—Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 128, 1887—Las Cruces

¹ Gould, when describing *O. veraguensis*, had several specimens, one collected by a certain Dr. Seemann at "Panama," and others secured by T. Bridges from "near David, in Veragua," that is, at Boquete, Chiriquí (cf. Sclater, Proc. Zool. Soc. Lond., 24, p. 143, 1856), which we may, therefore, accept as type locality.

de Candelaria, Costa Rica; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 441, 1893—Costa Rica (Dota), Chiriquí, and "Veragua"; idem, Handb. Game-Bds., 2, p. 160, 1897 (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 22, 1902—Boquete, Chiriquí (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 312, 1903—Costa Rica and Chiriquí (Boquete, near David); Carriker, Ann. Carnegie Mus., 6, p. 389, 1910—Costa Rica (Volcan de Irazú, Ujurrás de Térraba); Griscom, Auk, 50, p. 298, 1933—El Copey de Dota, Costa Rica (crit.).

Odontophorus consobrinus Ridgway, Proc. U. S. Nat. Mus., 16, p. 469, 1893—Hacienda Mirador, near Huatusco, Vera Cruz, Mexico (descr. of female; type in U. S. National Museum).

Odontophorus guttatus guttatus Austin, Bull. Mus. Comp. Zool., 69, p. 370, 1929—south of El Cayo and Augustine, British Honduras (crit.).

Range.—Tropical and Subtropical zones of southeastern Mexico from Vera Cruz and Oaxaca south through Guatemala, British Honduras, Honduras, and Costa Rica to extreme western Panama (slopes of Volcan de Chiriquí).¹

Field Museum Collection.—2: Nicaragua (San Rafael del Norte, 1); Costa Rica (Limón, 1).

Conover Collection.—25: Honduras (Alto Cantoral, Tegucigalpa, 1; Cantoral, Tegucigalpa, 3; Alto Guaymaca, Tegucigalpa, 2; San José, Santa Barbara, 2; Catacamas, Olanchó, 2); Costa Rica (Irazú, 4; La Estrella de Cartago, 3; El Copey, 5); Panama (Boquete, Chiriquí, 3).

****Odontophorus guttatus matudae* Brodkorb.² MATUDAS'**
SPOTTED PARTRIDGE.

¹ Although some authors include Veragua in its range, there is no authentic record from that province, the most easterly locality whence specimens have been procured being the Volcan de Chiriquí. It is now well established that *O. veraguensis* is merely a local erythristic variety of *O. guttatus*, and not a distinct species, while *O. consobrinus* was based on a female. Birds from Chiriquí (normal coloration) do not seem to be separable from those of more northern origin. Hellmayr, among others, has examined a female and young male collected by Wittkugel on La Cumbre, near Chamelicon, Honduras, on November 1, 1887, and February 17, 1888, respectively. The species does not seem to have been previously recorded from that republic.

² *Odontophorus guttatus matudae* Brodkorb: Differs from typical *guttatus* in having the white streaks on the throat broader and the spots on the breast long and tear-shaped instead of nearly round.

This supposed race has been recently described from two specimens, a male and a female. The female has been examined by the junior author, and also two recently acquired specimens in his own collection. On comparing them with twenty-five specimens of *guttatus* from Honduras, Costa Rica, and Panama, no color differences could be found that are not covered by individual variation. The striping on the throat, however, is broader and the spotting of the breast tear-shaped. There is such variation in these characters, however, among the above-mentioned twenty-five specimens that more examples from Chiapas may prove these differences to be of no value.

Odontophorus guttatus matudae Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 401, p. 4, 1939—Mount Madre Vieja, Chiapas, Mexico, alt. 750 meters (type in the Museum of Zoology, University of Michigan).

Range.—Known only from the vicinity of Escuintla, Chiapas, Mexico.

Conover Collection.—2: Mexico, Chiapas (Salta de Agua, Escuintla, 2).

Genus DACTYLORTYX Ogilvie-Grant

Dactylortyx Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, pp. xiv, 99 (in key), 429, 1893—type, by monotypy, *Ortyx thoracicus* Gambel.

Dactylortyx thoracicus thoracicus (Gambel).¹ VERA CRUZ LONG-TOED PARTRIDGE.

Ortyx thoracicus Gambel, Proc. Acad. Nat. Sci. Phila., 4, p. 77, 1848—Jalapa, Vera Cruz, Mexico (type in Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 20, 1899).

Dactylortyx thoracicus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 429, 1893—part, eastern Mexico; idem, Handb. Game-Bds., 2, p. 150, 1897 (monog.); Nelson, Proc. Biol. Soc. Wash., 12, p. 65, 1898 (descr. type); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 308, 1903—part, Jalapa.

Dactylortyx thoracicus thoracicus Peters, Bds. World, 2, p. 56, 1934 (range).

Range.—Mountain slopes of eastern Mexico, from southern Tamaulipas to Puebla.

Dactylortyx thoracicus devius Nelson.² JALISCO LONG-TOED PARTRIDGE.

Dactylortyx devius Nelson, Proc. Biol. Soc. Wash., 12, pp. 65, 68, 1898—San Sebastián, Jalisco, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Dactylortyx thoracicus (not *Ortyx thoracicus* Gambel) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 429, 1893—part, Guerrero; idem, Ibis, p. 242, 1902 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 308, 1903—part, Jalisco.

Dactylortyx thoracicus devius Peters, Bds. World, 2, p. 56, 1934 (range).

Range.—Western Mexico from the State of Jalisco south to Guerrero.

¹ *Material examined*.—Vera Cruz: Rio Seco, 1; Jalapa, 1.—Puebla: Metlatoyuca, 1.

² *Dactylortyx thoracicus devius* Nelson: Compared to typical *thoracicus*, the males are darker and buffier on center of abdomen, and the chest is slightly darker; the females on the upper parts are lighter throughout and have the mantle more rufous, while on the under parts the sides of the throat are lighter gray and the breast and abdomen are brighter rufous. The toes appear to be much longer.

Material examined.—Jalisco: San Sebastian, 1.—Guerrero: Omilteme, 13.

Dactylortyx thoracicus lineolatus (Gould).¹ OAXACAN LONG-TOED PARTRIDGE.

Odontophorus lineolatus Gould, Monog. Odont., Part 3, pl. 5, and text, 1850 (=pl. 32 of bound volume)—Mexico (cotypes in Berlin Museum).

Dactylortyx thoracicus (not *Ortyx thoracicus* Gambel) Ogilvie-Grant, Ibis, 1902, p. 242 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 308, 1903—part, Tehuantepec, Chiapas.

Dactylortyx thoracicus lineolatus Nelson, Proc. Biol. Soc. Wash., 12, pp. 64, 66, 1898—Mount Gineta, near Santa Efigenia, Oaxaca; Peters, Bds. World, 2, p. 56, 1934 (range).

Range.—Mountain slopes of southeastern Oaxaca and adjacent parts of western Chiapas.

Dactylortyx thoracicus sharpei Nelson.² YUCATAN LONG-TOED PARTRIDGE.

Dactylortyx thoracicus sharpei Nelson, Proc. Biol. Soc. Wash., 16, p. 152, 1903—Apazote, Campeche, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); Cole, Bull. Mus. Comp. Zool., 50, p. 116, 1906—Chichen-Itzá; Peters, Bds. World, 2, p. 56, 1934 (range).

Dactylortyx thoracicus (not *Ortyx thoracicus* Gambel) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 429, 1893—part, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 308, 1903—part, Yucatan.

Range.—Yucatan Peninsula.

***Dactylortyx thoracicus chiapensis** Nelson.³ CHIAPAN LONG-TOED PARTRIDGE.

¹ *Dactylortyx thoracicus lineolatus* (Gould): Birds of this race appear to differ from true *thoracicus* by having the white shaft stripes on the feathers of the breast and flanks much wider. The single male examined also has the abdomen whiter and the chest paler.

Material examined.—Oaxaca: Mount Gineta, near Santa Efigenia, 1.

² *Dactylortyx thoracicus sharpei* Nelson: Compared to any known Mexican race, the males have the cheeks and superciliary stripes deeper and richer cinnamon rufous, the top of the head brighter chestnut brown, the white area of the abdomen larger, the breast and mantle lighter (more grayish), the upper wing coverts, secondaries, and tertials paler. The females, compared with typical *thoracicus*, have the throat white, sides of face lightly washed with gray, lower breast and abdomen almost white, the upper breast slightly lighter, and the upper parts distinctly paler.

Material examined.—Campeche: Apazote, near Yohaltun, 3.—Yucatan: Chichen-Itzá, 1.

³ *Dactylortyx thoracicus chiapensis* Nelson: More material is needed before this race can definitely be deemed worthy of recognition. Two females examined are slightly lighter on the sides of the throat and more reddish on the mantle than a female from Vera Cruz. Two males show no color difference from a male from Metlatoyuca, Puebla. The toes of the specimens examined, however, appear much longer than in the skins of typical *thoracicus* mentioned above.

Additional material examined.—Chiapas: San Cristóbal, 3.—Guatemala: Quezaltenango, Volcan Santa María, 1; Quezaltenango, 1.

Dactylortyx chiapensis Nelson, Proc. Biol. Soc. Wash., 12, pp. 65, 66, 1898—San Cristóbal, Chiapas, Mexico (type in U. S. National Museum, Biological Survey Collection, examined).

Dactylortyx thoracicus (not *Ortyx thoracicus* Gambel) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 429, 1893—part, Guatemala; idem, Ibis, 1902, p. 242 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 308, 1903—part, Chiapas, Guatemala.

Dactylortyx thoracicus chiapensis Griscom, Bull. Amer. Mus. Nat. Hist., 64, p. 107, 1932—Teepam and Quetzaltenango, Guatemala (habits); Peters, Bds. World, 2, p. 56, 1934 (range).

Range.—Central Chiapas south to western Guatemala.

Conover Collection.—12: Mexico, Chiapas (Mount Ovando, Escuintla, 2; Santa Rosa, Escuintla, 2; Siltepec, Moriscal, 5; Male, Moriscal, 1; Pico de Loro, Sierra Madre Moriscal, 2).

***Dactylortyx thoracicus salvadoranus* Dickey and van Rossem.¹**
SALVADOREAN LONG-TOED PARTRIDGE.

Dactylortyx thoracicus salvadoranus Dickey and van Rossem, Proc. Biol. Soc. Wash., 41, p. 129, 1928—Volcan San Miguel, alt. 4,000 ft., Dept. San Miguel, El Salvador (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles, examined); Peters, Bds. World, 2, p. 56, 1934 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 153, 1938—El Salvador (Volcan de San Miguel).

Dactylortyx thoracicus (not *Ortyx thoracicus* Gambel) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 429, 1893—part, Volcan de San Miguel, Salvador; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 308, 1903—part, Volcan de San Miguel, Salvador.

Range.—Confined to the Volcan San Miguel, El Salvador.

****Dactylortyx thoracicus taylori* van Rossem.² TAYLOR'S LONG-TOED PARTRIDGE.**

Dactylortyx thoracicus taylori van Rossem, Trans. San Diego Soc. Nat. Hist., 7, No. 13, p. 151, 1932—Mount Cacaguatique, alt. 3,500 ft., Dept. San Miguel, El Salvador (type in coll. of Donald R. Dickey, now in the

¹*Dactylortyx thoracicus salvadoranus* Dickey and van Rossem: The male most closely resembles *D. t. chiapensis*, but has the breast and flanks much paler, more ashy colored; upper parts grayer, especially on the mantle, rump, upper wing coverts, and secondaries. The female differs from the corresponding sex of *chiapensis* by being slightly paler on the breast, and grayer (less reddish) on the upper wing coverts and secondaries. Feet and tarsus shorter.

Material examined.—El Salvador: Volcan San Miguel, 3.

²*Dactylortyx thoracicus taylori* van Rossem: The males have the ventral coloration grayer than *D. t. chiapensis*, but browner than *D. t. salvadoranus*, being closest to the latter; on the upper parts they resemble *salvadoranus*. The females resemble *chiapensis*, being slightly grayer on the upper wing coverts and secondaries. Feet and tarsus shorter than *chiapensis*, about equal to *salvadoranus*.

Additional material examined.—El Salvador: Mount Cacaguatique, 6.

University of California at Los Angeles, examined); Peters, Bds. World, 2, p. 56, 1934 (range, Mount Cacaguatique only); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 154, 1938—El Salvador (Mount Cacaguatique).

Range. Confined to the arid upper Tropical zone of Mount Cacaguatique, El Salvador.

Field Museum Collection.—1: El Salvador (San Miguel, Mount Cacaguatique, 1).

****Dactylortyx thoracicus fuscus* Conover.¹ HONDURAN LONG-TOED PARTRIDGE.**

Dactylortyx thoracicus fuscus Conover, Proc. Biol. Soc. Wash., 50, p. 73, 1937—Alto Cantoral, Dept. Tegucigalpa, Honduras (type in Conover Collection, Field Museum of Natural History, examined).

Dactylortyx thoracicus taylori van Rossem, Trans. San Diego Soc. Nat. Hist., 7, No. 13, p. 152, 1932—part (southern Honduras, range only); Peters, Bds. World, 2, p. 56, 1934—part, range in Honduras.

Dactylortyx thoracicus salvadoranus (not of Dickey and van Rossem) Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 302, 1932—San Juancito, Honduras.

Range.—Honduras.

Conover Collection. 9: Honduras (Alto Cantoral, Tegucigalpa, 2; Cantoral, Tegucigalpa, 1; Catacamas, Olancho, 6).

Genus CYRTONYX Gould

Cyrtonyx Gould, Monog. Odont., Part 1, 1844, pl. [2] and text (=pl. 7 of bound volume)—type, by monotypy, *Ortyx massena* Lesson=*Ortyx montezumae* Vigors.

****Cyrtonyx montezumae mearnsi* Nelson.² MEARNS'S QUAIL.**

¹ *Dactylortyx thoracicus fuscus* Conover: Closest to *D. t. chiapensis*. Males are darker on the breast, flanks, crown of head, lower back, rump, upper wing coverts, and secondaries. Females are slightly brighter red on the breast, the abdomen is more buffy, and the mantle redder; the lower back, rump, upper wing coverts, and secondaries have a rich golden ochraceous tinge, instead of a grayish buff one. Differs from *D. t. taylori* in the same manner, but to a greater degree, as *taylori* is lighter than *chiapensis*. Males from Catacamas are lighter than the type and one other specimen from southern Honduras and may not belong to this race.

Additional material examined.—Honduras: Rancho Quemado, 1; San Juancito, 2.

² *Cyrtonyx montezumae mearnsi* Nelson: In the males the upper parts are lighter (buffier) than in typical *montezumae*, the rear part of the crest is lighter brown, the gray of the sides of the body is slightly lighter and covered more thickly and more numerous with white spots. The females are lighter (grayer) on the upper parts and have the light shaft streaks broader and whiter (less buffy); under parts paler.

Additional material examined.—Texas: Chisos Mountains, 2.—New Mexico: Sierra County, 2; Animas Mountains, 2; Socorro County, 1.—Arizona: Fort Huachuca, 1.—Chihuahua: San Luis Mountains, 1; Colonia Garcia, 1.

Cyrtonyx montezumae mearnsi Nelson, Auk, 17, p. 255, 1900—Fort Huachuca, Arizona (type in U. S. National Museum, Biological Survey Collection, examined); idem, Auk, 19, p. 390, pl. 15, 1902 (dist. char.); Fuertes, Condor, 5, p. 113, 1903 (habits in Texas); Miller, Bull. Amer. Mus. N. H., 22, p. 162, 1906—Paraje de las Mujeres, Arroyo del Buey, San Juan, and San José, northwest Durango (crit.); Swarth, Condor, 26, p. 39, 1909 (range in U. S. and molt); F. M. Bailey, Birds New Mexico, p. 223, pl. 20, 1928 (range and habits, New Mexico); van Rossem, Trans. San Diego Soc. Nat. Hist., 6, p. 247, 1931—Saric, Sonora; Bent, Bull. U. S. Nat. Mus., 162, p. 84, 1932 (life hist.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 432, 1934 (range in Sonora); Peters, Bds. World, 2, p. 57, 1934 (range).

Cyrtonyx montezumae (not *Ortyx montezumae* Vigors) Dwight, Auk, 17, p. 50, 1900 (molt); Ogilvie-Grant, Ibis, 1902, p. 241 (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 305, 1903—part, Sonora, Chihuahua.

Cyrtonyx montezumae montezumae van Rossem, Trans. San Diego Soc. N. H., 6, p. 246, 1931—Guircoba, Sonora.

Range.—West-central Texas, central New Mexico, central Arizona south to northern Coahuila, Chihuahua, and Sonora.

Field Museum Collection.—7: Texas (Bandera, 1); New Mexico (Fort Cummings, 1); Arizona (Huachuca Mountains, 2; Catalina Mountains, 1); Mexico, Chihuahua (Sierra Tarahu, Samachique, 1; Baticora, 1).

Conover Collection.—12: New Mexico (Grant County, Fort Bayard, 2; Socorro County, 1); Arizona, Cochise County (Huachuca Mountains, 2; Whetstone Mountains, 1; Chiricahua Mountains, 1); Mexico, Sonora (Cibuta, 5).

****Cyrtonyx montezumae montezumae* (Vigors).¹ MONTEZUMA'S QUAIL.**

Ortyx montezumae Vigors, Zool. Journ., 5, No. 18, p. 275, June, 1830—Mexico (type in coll. of Zoological Society of London, present location unknown); idem, Jardine and Selby, Ill. Orn., text to pl. 107, Dec., 1830.

Ortyx massena Lesson, Ill. Zool., pl. 52, text [p. 3], 1835—Mexico (type in Rivoli Collection,² now probably in the Academy of Natural Sciences of Philadelphia).³

¹ A specimen from Chalchicomula, Puebla, shows a tendency toward *merriami*. It has golden buff spots on the lower flanks, a tendency toward chestnut on the shaft stripes of the secondaries, and the gray of the sides of the breast is slightly lighter than in typical *montezumae*. This specimen has the white collar below the black throat, however.

Additional material examined.—Mexico: Mexico City, 1.—Hidalgo: Iolo, 1.—Puebla: Chalchicomula, 1.—Jalisco: Talpa, 1; Florencio, 2.

² Cf. Lesson, Cent. Zool., p. 189 (in text), March, 1831, where the name is a *nomen nudum*.

³ Not listed by Stone, Proc. Acad. Nat. Sci. Phila., 51, pp. 1–62, 1899.

Tetrao guttata La Llave, Reg. Trim., 1, p. 144, 1831.¹

Odontophorus meleagris Wagler, Isis von Oken, col. 277, 1832—Mexico (type formerly in the Würzburg Museum, apparently lost).

Perdix perspicillata Lichtenstein, fide Gould, Monog. Odont., Part 1, text to pl. 7, 1844.

Cyrtonyx massena Gould, Monog. Odont., pl. 7, text unpagged, 1850.

Cyrtonyx montezumae Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 425, 1893—part; idem, Handb. Game-Bds., 2, p. 146, 1897 (monog.); Nelson, Auk, 19, p. 389, pl. 15, 1902 (dist. char.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 305, 1903—part, Sinaloa, Tamaulipas, Tepic, Puebla.

Cyrtonyx montezumae montezumae Miller, Bull. Amer. Mus. N. H., 21, p. 342, 1905—Juan Lisiarraga Mountains, Sinaloa; Phillips, Auk, 28, p. 74, 1911—Mexico, Tamaulipas (Yerba Buena, Rampahuila, Carricitos); Peters, Bds. World, 2, p. 57, 1934 (range).

Cyrtonyx montezumae meleagris Peters, Bds. World, 2, p. 57, 1934.

Range.—Mexico from west-central Tamaulipas, Durango, and Sinaloa south to Puebla, Valley of Mexico, and Michoacan.

Field Museum Collection.—1: Mexico, Durango (Coyotes, 1).

Conover Collection.—4: Mexico (Durango, 29 miles southwest of city of Durango, 1; Sinaloa, Pinos Gordo, 2; Michoacan, Tancitaro, 1).

***Cyrtonyx montezumae merriami* Nelson.² MERRIAM'S QUAIL.**

Cyrtonyx merriami Nelson, Auk, 14, p. 48, 1897—Mount Orizaba, Vera Cruz, Mexico (type in U. S. National Museum, Biological Survey Collection, examined); idem, Auk, 19, p. 391, pl. 15, 1902 (disc. of char.).

Cyrtonyx sallaiei (not of J. Verreaux) Ogilvie-Grant, Ibis, 1902, p. 242 (disc.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 306, 1903—part, Volcan de Orizaba.

Cyrtonyx montezumae merriami Peters, Bds. World, 2, p. 57, 1934 (range).

Range.—Known only from the type, taken on the eastern slope of Mount Orizaba, Vera Cruz, Mexico.

¹ Not seen by the authors.

² *Cyrtonyx montezumae merriami* Nelson: Similar to *C. m. montezumae*, but crown darker, light shaft streaks on back of head buffy white, and black of throat extending down to chestnut of chest so that white collar is lacking; sides of breast much lighter gray (more slaty) with white spots about one-half as large; on the posterior portion of the flanks the spotting is golden buff instead of white, becoming almost chestnut on the tips of the feathers; chestnut of breast slightly lighter; upper parts with the gray portions of the feathers more slaty, the light shaft streaks buffy on mantle, gradually darkening until they are chestnut on the longer scapulars, tertials, and upper tail coverts; spots on wing coverts light golden.

Material examined.—Vera Cruz: Mount Orizaba, 1.

Cyrtonyx sallei J. Verreaux.¹ SALLÉ'S QUAIL.

Cyrtonyx sallei J. Verreaux in Thomson's Arc. Nat., 1, p. 35, pl. 4, 1859—Mexico=State of Guerrero (type in British Museum); Peters, Bds. World, 2, p. 57, 1934 (range); Griscom, Auk, 54, p. 193, 1937—Isguagilite, Guerrero (char. of female).

Cyrtonyx sallaei Salvin and Godman, Ibis, 1889, p. 242—Amulo, Guerrero; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 427, 1893—Amulo, Guerrero; idem, Handb. Game-Bds., 2, p. 148, 1897 (monog.); Nelson, Auk, 19, p. 389, pl. 15, 1902 (disc. of char.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 306, 1903—part, Guerrero.

Range.—Mexico, from Michoacan south through Guerrero to east-central Oaxaca.

***Cyrtonyx ocellatus** (Gould). OCELLATED QUAIL.

Ortyx ocellatus Gould, Proc. Zool. Soc. Lond., 4, "1836," p. 75, pub. Jan. 16, 1837—Guatemala (type in coll. of Zoological Society of London, present location unknown).

Cyrtonyx ocellatus Gould, Monog. Odont., pl. 8, text unpagged, 1850; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 428, 1893; idem, Handb. Game-Bds., 2, p. 149, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 307, 1903—Mexico (Tehuantepec, Santa Efigenia), Guatemala (Quezaltenango, Dueñas, Toliman), and Honduras (Danli, Jalapa); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 77, 1907—Tecpam, Guatemala; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 387, 1928—Tapanatepec, Oaxaca; Griscom, Bull. Amer. Mus. N. H., 64, p. 107, 1932—Antigua, Nebaj, San Antonio, Panajachel, and San Lucas, Guatemala (habits, range).

Cyrtonyx sumichrasti Lawrence, Ann. N. Y. Acad. Sci., 1, p. 51, 1877—Santa Efigenia, Tehuantepec, Mexico (type in U. S. National Museum).

Cyrtonyx ocellatus differens Griscom,² Proc. New Eng. Zool. Cl., 13, p. 56, 1932—Hatillo, Honduras (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, Bds. World, 2, p. 57, 1934 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 155, 1938—El Salvador (Los Esesmiles).

Cyrtonyx ocellatus ocellatus Peters, Bds. World, 2, p. 57, 1934 (range).

¹ The female of *C. sallei* resembles that of *C. m. montezumae*, but is darker, more reddish brown, and the black vermiculations on the upper parts are heavier (coarser). In the one specimen examined the black markings on the breast are more numerous.

Material examined.—Michoacan: Los Rupes, 1.—Guerrero: Omilteme, 1.—Oaxaca: Cerro San Felipe, 1; Ozolotepec, 1.

² Specimens from Nicaragua and Honduras appear to be the same as specimens from Guatemala and Mexico.

Additional material examined.—Mexico: Teopisca, Chiapas, 3.—Guatemala: Nebaj, 1; San Antonio, 1; Newton, 1; San Marcos, 1; Toyabay, Quiché, 2; unspecified, 1.—Nicaragua: San Rafael del Norte, 1.

Range.—From the eastern part of the State of Oaxaca, Mexico, south in the highlands to northwestern Nicaragua.

Field Museum Collection.—3: Guatemala (Tecpam, 2); El Salvador (Los Esesmiles, Chalatenango, 1).

Conover Collection.—12: Honduras (Alto Cantoral, Tegucigalpa, 1; Cantoral, 3; Laguna Cantoral, 2; Alto Guaymaca, 1; Ceguaca, Santa Barbara, 1; Santa Barbara, 1; La Flor, near Archaga, Tegucigalpa, 3).

Genus RHYNCHORTYX Ogilvie-Grant

Rhynchortyx Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, pp. 100, 443, 1893—type, by monotypy, *Odontophorus spodiostethus* Salvin (=male) and *Odontophorus cinctus* Salvin (=female).

Rhynchortyx cinctus pudibundus Peters.¹ HONDURAN LONG-LEGGED COLIN.

Rhynchortyx cinctus pudibundus Peters, Bull. Mus. Comp. Zool., 69, p. 405, Oct., 1929—Lancetilla, Honduras (type in Museum of Comparative Zoology, Cambridge, Mass.); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 302, 1932—Lancetilla; Peters, Bds. World, 2, p. 58, 1934—Lancetilla.

Range.—Tropical zone of Honduras (known only from Lancetilla, the type locality).

***Rhynchortyx cinctus cinctus** (Salvin).² LONG-LEGGED COLIN.

Odontophorus cinctus Salvin, Ibis, (3), 6, p. 377, 1876—Veragua (descr. of female; cotypes in the Salvin-Godman Collection, now in the British Museum); Rowley, Orn. Misc., 3, p. 39, pl. 86, 1878 (fig. of type); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, pl. 75 (=female), 1903.

Odontophorus spodiostethus Salvin, Ibis, (4), 2, p. 447, 1878—Veragua (descr. of male; type in the Salvin-Godman Collection, now in the British Museum); Richmond, Proc. U. S. Nat. Mus., 16, p. 524, 1893—Rio Escondido, Nicaragua (descr. of male); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, pl. 76 (=male), 1903.

Odontophorus rubigenis (Lawrence MS.) Richmond, Proc. U. S. Nat. Mus., 16, p. 525 (in text), 1893—Panama (type in the American Museum of Natural History, New York).

Rhynchortyx spodiostethus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 443, 1893—Veragua and Panama (Agua Dulce); idem, Handb. Game-Bds.,

¹ *Rhynchortyx cinctus pudibundus* Peters: Similar to *R. c. cinctus*, but general tone of upper parts slightly grayer, abdomen more extensively white, and posterior portion of flanks less washed with buffy (Peters, l.c.).

Known only from three specimens taken at Lancetilla, in northern Honduras.

² The two names proposed by Salvin are now known to refer to male and female of the same species.

2, p. 162, pl. 34 (male), 1897—Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 313, 1903—Nicaragua (Rio Escondido, Ojoche) and Panama.

Rhynchortyx cinctus Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 444, 1893—Veragua; idem, Handb. Game-Bds., 2, p. 162, 1897—Veragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 313, 1903—Veragua.

Rhynchortyx cinctus cinctus Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 196, 1922—Mount Sapo, Darien; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 207, 1932—Eden, Nicaragua (variation); Peters, Bds. World, 2, p. 58, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Pacific slope of Panama (Veraguas, Darien).

Range.—Tropical zone of Nicaragua south to the Pacific slope of eastern Panama (Darien).¹

Conover Collection.—1: Costa Rica (Villa Quesada, 1).

****Rhynchortyx cinctus hypopius* Griscom.² CARIBBEAN LONG-LEGGED COLIN.**

Rhynchortyx cinctus hypopius Griscom, Bull. Mus. Comp. Zool., 72, p. 320, 1932—Obaldia, Caribbean slope, Darien, eastern Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, l.c., 78, p. 304, 1935—Caribbean slope of eastern Darien; Peters, Bds. World, 2, p. 58, 1934 (range).

Range.—Tropical zone on the Caribbean slope of eastern Darien, Panama.

Conover Collection.—2: Panama (Obaldia, Darien, 2).

****Rhynchortyx cinctus australis* Chapman.³ SOUTHERN LONG-LEGGED COLIN.**

Rhynchortyx cinctus australis Chapman, Bull. Amer. Mus. N. H., 34, p. 365, 1915—Barbacoas, Nariño, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 202, 1917—Chocó, Anda-

¹ Huber notices certain differences between specimens from various parts of Nicaragua, while Chapman pronounces a single Panama male (*rubigenis*) to be identical with Nicaraguan birds.

² *Rhynchortyx cinctus hypopius* Griscom: Nearest to *R. c. pudibundus*, but even paler ochraceous below, with far more pure white in the center of the abdomen; thighs whitish, only faintly barred; rump and upper tail coverts grayer; female paler, with much less barring below, under tail coverts more whitish with broader bars, and pileum rusty—apparently more like *R. c. australis*—and auriculars rusty instead of sooty (Griscom, l.c.).

³ *Rhynchortyx cinctus australis* Chapman; Nearest to *R. c. cinctus*, but darker throughout; male with the breast slightly darker gray, and the posterior under parts, especially flanks and crissum, deeper ochraceous-buff; crown, margins to dorsal feathers, and tertiaries richer chestnut; bars on outer webs of secondaries likewise darker, hazel rather than ochraceous-buff; female also more deeply colored. Wing, 116–120; tail, 44–45; bill, 17.

Additional material examined.—Colombia: Sipí, Chocó, 3.—Ecuador, Prov. Esmeraldas: Bulún, 2; Rio Bogotá, 1; Pambilár, 1.

gueda, Bagado, Baudo, and Barbacoas, Colombia; idem, l.c., 55, p. 161, 1926—western Ecuador; Peters, Bds. World, 2, p. 58, 1934 (range).

Rhynchortyx cinctus (not *Odontophorus cinctus* Salvin) Hartert, Nov. Zool., 9, p. 600, 1902—Bulún, Rio Bogotá, and Pambilár, Prov. Esmeraldas, Ecuador (crit., plumages); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1206—Sipi, Chocó, Colombia (sexual differences).

Range.—Tropical zone of the Pacific slope of Colombia and Ecuador, from the upper Atrato River to Province of Esmeraldas.

Field Museum Collection.—1: Ecuador (Bulún, 1).

Genus **PERDIX** Brisson

Perdix Brisson, Orn., 1, pp. 26, 219, 1760—type, by tautonymy, *Tetrao perdix* Linnaeus.

***Perdix perdix perdix** (Linnaeus). HUNGARIAN PARTRIDGE.

Tetrao perdix Linnaeus, Syst. Nat., 10th ed., 1, p. 160, 1758—Europe, restricted type locality Sweden, ex Fn. Svec. No. 172.

Perdix perdix Phillips, U. S. Dept. Agr., Tech. Bull., 61, p. 34, 1928 (hist. of introd.); Spiker, Wilson Bull., 41, p. 24, 1929 (range in northwestern Iowa); Taverner, Bds. Canada, p. 163, 1934 (range and introd. Canada).

Perdix perdix perdix Bent, Bull. U. S. Nat. Mus., 162, p. 1, 1932 (introd. and hist. in N. Amer.).

Range.—Introductions have been most successful in western Canada where the bird has established itself from central Manitoba west to central Alberta and south to the border, and in British Columbia in the Okanagan District and Vancouver Island. In the United States it is found from southeastern Wisconsin to north-eastern Illinois, in northwestern Iowa, extreme northwestern Kansas, northwestern North Dakota, extreme northern Montana, and in Washington and Oregon, east of the Cascade Mountains.

Field Museum Collection.—2: Illinois (Palatine, 1); Indiana (Bluffton, 1).

Genus **PHASIANUS** Linnaeus

Phasianus Linnaeus, Syst. Nat., 10th ed., 1, p. 158, 1758—type, by tautonymy, *Phasianus colchicus* Linnaeus.

***Phasianus colchicus torquatus** Gmelin. RING-NECKED PHEASANT.

Phasianus colchicus *β. torquatus* Gmelin, Syst. Nat., 1, (2), p. 742, 1789—China; restricted type locality, southeastern China.

Phasianus torquatus Shaw, The China or Denny Pheasant in Oregon, 1908 (hist. of first successful introd. in N. Amer.); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 572, 1918 (introd., habits, California).

Phasianus colchicus torquatus F. M. Bailey, Bds. New Mexico, p. 229, 1928 (introd. failure New Mexico); Cottam, Condor, 31, p. 117, 1929 (status and food, Utah); Bent, Bull. U. S. Nat. Mus., 162, p. 310, 1932 (introd. and hist. N. Amer.).

Phasianus torquatus colchicus Phillips, U. S. Dept. Agr., Tech. Bull., 61, p. 42, 1928 (hist. of introd.).

Phasianus colchicus Taverner, Bds. Canada, p. 165, 1934 (British Columbia, Ontario, Vancouver Island).

Phasianus colchicus colchicus and *torquatus* Peters, Bds. World, 2, pp. 121, 126, 1934 (introd. N. Amer.).

Range.—Introduced and fairly well established in approximately the northern half of the United States and extreme southern Canada. From southwestern Maine, central New Hampshire, central Vermont, central New York, southern Ontario, southern Manitoba, southern Alberta, and southern British Columbia south to Maryland, Pennsylvania, Ohio, Kentucky, Missouri, Kansas, Colorado, and California.¹

Field Museum Collection.—3: Massachusetts (Great Island, 3).

Family NUMIDIDAE. Guinea Fowl

Genus NUMIDA Linnaeus

Numida Linnaeus, Syst. Nat., 12th ed., 1, p. 273, 1766—type, by monotypy, *Numida meleagris* Linnaeus=*Phasianus meleagris* Linnaeus.

Numida meleagris galeata Pallas. COMMON GUINEA FOWL.

Numida galeata Pallas, Spic. Zool., 1, fasc. 4, pp. 13, 15, 1767—no locality; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 125, 1935—hist. Haiti, Dominican Republic.

Numida meleagris Cory, Birds West Indies, p. 222, 1889—Cuba, San Domingo, Jamaica, Porto Rico, Barbuda; Wetmore, Bull. U. S. Dept. Agr., 326, p. 34, 1916—status Porto Rico; Phillips, U. S. Dept. Agr., Tech. Bull., 61, p. 11, 1928—Jamaica, Cuba, Porto Rico, Dominican Republic, and Barbados.

Numida meleagris galeata Peters, Bds. World, 2, p. 134, 1934—introduced in Jamaica, Cuba, Hispaniola, and Porto Rico.

Range.—Introduced into Barbuda, Puerto Rico, Hispaniola, Cuba, Jamaica, and Barbados.

¹ The Ring-necked Pheasant was introduced, in 1886 or 1887, at Coquimbo, Chile, where it appears to have survived for some time. Cf. Lataste, Act. Soc. Scient. Chili, 6, p. lxiii, 1896; Chauvelet, l.c., p. lxxxv; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 424, 1932.

Family MELEAGRIDIDAE. Turkeys

Genus MELEAGRIS Linnaeus

Meleagris Linnaeus, Syst. Nat., 10th ed., 1, p. 156, 1758—type, by tautonymy, "*Meleagris*" = *Meleagris gallopavo* Linnaeus.

****Meleagris gallopavo silvestris* Vieillot. EASTERN TURKEY.**

Meleagris silvestris Vieillot, Nouv. Dict. Hist. Nat., nouv. ed., 9, p. 447, 1817—based on the "Dindon d'Amérique" Bartram, Trav. (French ed.), 1, p. 467; country of the Illinois to Panama = Pennsylvania, ex Bartram.

Meleagris americana Bartram, Trav., p. 290, 1791—Pennsylvania (nomen nudum); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 389, 1893; idem, Handb. Game-Bds., 2, p. 106, 1897 (monog.).

Meleagris palawa Barton, Med. & Phys. Journ., 2, Part 1, pp. 163–164, 1805—United States (nomen nudum).

Meleagris fera Vieillot, Gal. Ois., 2, p. 10, pl. 201, 1825—United States.

Meleagris gallopavo Elliot, Monog. Phas., 1, pl. 31, text unpagued, 1872.

Meleagris gallopavo var. *occidentalis* Allen, Bull. Nutt. Orn. Cl., 1, p. 55, 1876 (extinct in New Eng.).

Meleagris gallopavo silvestris Cooke, Condor, 15, p. 104, 1913 (range); F. M. Bailey, Bds. New Mexico, p. 230, 1928 (supposed range on North Fork Canadian River, now extinct); Sutton, Auk, 46, p. 326, 1929 (nest. Penn.); Bent, Bull. U. S. Nat. Mus., 162, p. 326, 1932 (life hist.); Peters, Bds. World, 2, p. 140, 1934 (range).

Range.—Central Pennsylvania, eastern Kentucky, southeastern Missouri, and western Oklahoma south to northern Florida, the Gulf Coast, and eastern Texas. Formerly extending north to southern Maine, southwestern Ontario, and South Dakota.

Field Museum Collection.—4: Virginia (unspecified, 1); Georgia (Grady County, 1; Thomasville, 1); Oklahoma (unspecified, 1).

****Meleagris gallopavo osceola* Scott. FLORIDA TURKEY.**

Meleagris gallopavo osceola Scott, Auk, 7, p. 376, Oct., 1890—Tarpon Springs, Florida (type in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 158, 1930); Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 390, 1893; idem, Handb. Game-Bds., 2, p. 108, 1897 (monog.); Bent, Bull. U. S. Nat. Mus., 162, p. 340, 1932 (life hist.); Peters, Bds. World, 2, p. 140, 1934 (range).

Meleagris occidentalis Bartram, Trav., p. 83, 1791—near Pincolata, Florida (nomen nudum).

Range.—Florida Peninsula from Gainesville southward.

Field Museum Collection.—3: Florida (Fort Myers, 1; Tampa, 1; La Fayette County, 1).

Conover Collection.—2: Florida (Charlotte Harbor, 1; Taylor County, Dead Man's Bay, 1).

****Meleagris gallopavo intermedia* Sennett. RIO GRANDE TURKEY.**

Meleagris gallopavo var. *intermedia* Sennett, Bull. U. S. Geol. Geogr. Surv. Terr., 5, p. 428, Nov. 30, 1879—Lomita Ranch, Hidalgo County, Texas (cotypes in American Museum of Natural History and U. S. National Museum); Phillips, Auk, 28, p. 74, 1911—Rio Cruz, Tamaulipas; Bent, Bull. U. S. Nat. Mus., 162, p. 342, 1932 (life hist.); Peters, Bds. World, 2, p. 140, 1934 (range).

Meleagris gallopavo ellioti Sennett, Auk, 9, p. 167, pl. 3, 1892—Lomita Ranch, Hidalgo County, Texas (cotypes in American Museum of Natural History).

Meleagris ellioti Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 388, 1893; idem, Handb. Game-Bds., 2, p. 105, 1897 (life hist.).

Meleagris gallopavo Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 284, 1903—part (southern Texas and Tamaulipas only).

Range.—Middle-northern Texas south to, northeastern Coahuila, Nuevo Leon, Tamaulipas, and extreme southeastern San Luis Potosi, Mexico.

Field Museum Collection.—7: Texas (Kerrville, Kerr County, 3); Coahuila (Sabinas, 4).

Conover Collection.—4: Texas (Kennedy County, Norias, 1); Tamaulipas (Cruz, 2); San Luis Potosi (Micos, 1).

****Meleagris gallopavo merriami* Nelson.¹ MERRIAM'S TURKEY.**

Meleagris gallopavo merriami Nelson, Auk, 17, p. 120, April, 1900—Winslow, Arizona (type in U. S. National Museum, Biological Survey Collection); idem, Auk, 19, p. 388, 1902 (disc.); Cooke, Condor, 15, p. 104, 1913 (range); F. M. Bailey, Bds. New Mexico, p. 231, pl. 21, 1928 (range, habits New Mexico); Bent, Bull. U. S. Nat. Mus., 162, p. 323, 1932 (life hist.); Peters, Bds. World, 2, p. 140, 1934 (range).

Meleagris mexicana (not of Gould) Elliot, Monog. Phas., 1, pl. 32, text unpagged, 1872—part, Arizona.

Meleagris gallopavo (not of Linnaeus) Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 387, 1893—part, western Texas, New Mexico, Arizona; idem, Handb. Game-Bds., 2, p. 103, 1897—part, western Texas, New Mexico, Arizona; Howard, Condor, 2, p. 55, 1900 (nest. Arizona); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 284, 1903—part, Texas to Arizona.

Range.—Mountains of southern Colorado, western Texas, New Mexico, and Arizona to northern Sonora and Chihuahua, Mexico.

Field Museum Collection.—5: New Mexico (Mogollon Mountains, 3; Black Mountains, Socorro County, 1); Arizona (White Mountains, 1).

Conover Collection.—1: Arizona (White Mountains, 1).

¹ *Meleagris gallopavo merriami* Nelson: Distinguished by having the lower back black as in *M. g. gallopavo*, but differing from that race in the tips of the feathers of the lower rump, upper tail coverts and tail being pale buff or buffy white instead of white; the middle tail feathers also are distinctly barred with chestnut and black, not vermiculated.

Meleagris gallopavo gallopavo Linnaeus. MEXICAN TURKEY.

Meleagris gallopavo Linnaeus, Syst. Nat., 10th ed., 1, p. 156, 1758—North America=Mexico;¹ Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 387, 1893—part, Ciudad Durango and Mexico; idem, Handb. Game-Bds., 2, p. 103, 1897—part, Ciudad Durango and Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 284, 1903—part, Durango, Jalisco.

Meleagris mexicana Gould, Proc. Zool. Soc. Lond., 24, p. 61, June 30, 1856—Mexico² (type now in British Museum); Elliot, Monog. Phas., 1, pl. 32, text unpagged, 1872—part, Mexico.

Meleagris gallopavo gallopavo Peters, Bds. World, 2, p. 140, 1934 (range).

Range.—Central Mexico from the eastern slope of the Cordillera in Vera Cruz (Mirador and Zacuapan)³ west to central Durango (El Salto).

Meleagris gallopavo onusta Moore.⁴ MOORE'S MEXICAN TURKEY.

Meleagris gallopavo onusta Moore, Auk, 55, p. 112, Jan., 1938—two miles south-east of Guayachi, Chihuahua, twenty miles northeast of junction of Rios Chinipas and Fuerte, western slope of the Sierra Madre (type in coll. of Robert T. Moore).

Range.—Transition and Lower Canadian zone of the western slope of the Sierra Madre of the Sonoran-Chihuahuan border. North and south limits unknown.

Genus **AGRIOCHARIS** Chapman

Agriocharis Chapman, Bull. Amer. Mus. N. H., 8, pp. 287, 288, 1896—type, by monotypy, *Meleagris ocellata* Temminck=*M. ocellata* Cuvier.

***Agriocharis ocellata** (Cuvier). OCELLATED TURKEY.

Meleagris ocellata Cuvier, Mém. Mus. Hist. Nat., 6, pp. 1, 4, pl. 1, 1820—Gulf of Honduras (type in Paris Museum); Elliot, Monog. Phas., 1, pl. 33, 1872—Yucatan, Petén, Guatemala, and British Honduras; Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 391, 1893; idem, Handb. Game-Bds., 2, p. 110, pl. 31, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 285, 1903—Yucatan (Buctzotz, Mérida, Espita, Valladolid), British Honduras (Belize, Western District), and Guatemala (Yashá, Petén).

¹ Moore (Auk, 55, p. 113, 1938) suggests Mirador, Vera Cruz, as type locality.

² Nelson (Auk, 17, p. 122, 1900) sets forth his belief that Gould's specimen was obtained by Mr. Floresi at Bolaños, Jalisco, Mexico. We prefer to follow the indirect assumption of the original description that the type locality is the Real del Monte Mines, Hidalgo, Mexico.

³ Cf. Moore, Auk, 55, p. 113, 1938.

⁴ *Meleagris gallopavo onusta* Moore is said to be nearest to *M. g. merriami*, but to have the tips of the rectrices and upper tail coverts white, instead of light buff. From *M. g. gallopavo* it is supposed to differ by having the median rectrices barred, instead of mottled or vermiculated, and by having the rump pure black without greenish iridescence.

Meleagris aureus Vieillot, Tabl. Encycl. Méth., 1, livr. 89, p. 361, 1820—Bay of Honduras (type in Paris Museum).

Agriocharis ocellata Chapman, Bull. Amer. Mus. N. H., 8, p. 287, 1896—Chichen-Itzá, Yucatan; Cole, Bull. Mus. Comp. Zool., 50, p. 115, 1906—Chichen-Itzá; Shufeldt, Auk, 30, p. 432, 1913 (unusual plumage); idem, Aquila, 21, p. 1, 1914 (osteology); Griscom, Amer. Mus. Nov., 235, p. 7, 1926—Acomal, Yucatan; idem, Bull. Amer. Mus. N. H., 64, p. 104, 1932—Guatemala; Peters, Bds. World, 2, p. 141, 1934 (range); Van Tyne, Misc. Pub., Mus. Zool. Univ. Mich., 27, p. 11, 1935—Uaxactun, Pacamón, and Dos Arroyos, Petén, Guatemala (nest and eggs descr.).

Range.—Yucatan Peninsula and adjacent parts of Guatemala and British Honduras.

Field Museum Collection.—4: Yucatan (Rio Lagartos, 2; unspecified, 2).

Conover Collection.—1: Yucatan (unspecified, 1).

Suborder OPISTHOCOMI

Family OPISTHOCOMIDAE. Hoatzins

Genus OPISTHOCOMUS Illiger

Opisthocomus ("Hoffmannsegg") Illiger, Prodr. Syst. Mamm. Av., p. 239, 1811—type, by monotypy, *Phasianus cristatus* "Lin. Gmel." = *Phasianus hoazin* P. L. S. Müller.

Orthocorys Vieillot, Anal. Nouv. Orn. Elém., p. 49, 1816—type, by monotypy, "Hoazin" Buffon = *Phasianus hoazin* P. L. S. Müller.

Sasa ("Sonnini") Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 30, p. 216, 1819—type, by monotypy, *Phasianus cristatus* "Lath." = *Phasianus hoazin* P. L. S. Müller.

**Opisthocomus hoazin* (P. L. S. Müller). HOATZIN.

Phasianus hoazin P. L. S. Müller, Natursyst., Suppl., p. 125, 1776—based on "Faisan huppé de Cayenne" Daubenton, Pl. Enl., pl. 337; Cayenne.

Phasianus cristatus Gmelin, Syst. Nat., 1, (2), p. 741, 1789—synon. in part, mainly based on Daubenton, Pl. Enl., pl. 337.

Opisthocomus hoatzin Stephens, in Shaw, Gen. Zool., 11, (1), p. 193, 1819—Guiana.

Opisthocomus cristatus Martius, Reise Bras., 2, p. 829, 1828—Rio Itapicurú, Maranhão, Brazil; Gray and Mitchell, Gen. Bds., 2, p. 396, pl. xcvi, 1845; Schomburgk, Reisen Brit. Guiana, 2, p. 26, 1848—Rio Takutú; Deville, Rev. Mag. Zool., (2), 4, p. 217, pl. 9, 1852—Goyáz (near Rio de Crixas, banks of the Rio Araguaya and Rio Tocantins), Matto Grosso (Rio Paraguay), Peru (Rio Ucayali), and Amazon down to Pará (anat., habits); Des Murs, in Castelnau, Expéd. Amér. Sud. Ois., p. 70, 1856 (anat.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 342, 1856—Amazon and Guiana; Sclater, Proc. Zool. Soc. Lond., 25, p. 19, 1857—"Bogotá," Colombia; Bates, Natur. Amazon, p. 179, 1863—Vista Alegre, above Cameté, Rio Tocantins; Huxley, l.c., 1867, pp. 435, 460 (anatomy); idem, l.c., 1868,

p. 304 (anat., affin.); Cabanis, Journ. Orn., 18, p. 318, pl. 1, fig. 3, 1870 (eggs descr.); Pelzeln, Orn. Bras., 3, p. 280, 1870—Matto Grosso (Engenho do Gama, Cidade de Matto Grosso) and Manáos, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 308—Cashiboya, Peru; Perrin, l.c., p. 685—Maroni River, Surinam; idem, Trans. Zool. Soc. Lond., 9, p. 353, pls. 63–66, 1875 (myology); B. Brown, Canoe and Camp Life Brit. Guiana, pp. 270, 371, 1876—mouth of the Cotinga and estuary of the Berbice River; Garrod, Proc. Zool. Soc. Lond., 1879, p. 109 (anatomy); Sclater, l.c., 1881, p. 259—Obidos, Brazil (eggs descr.); Berlepsch, Ibis, 1884, p. 440—Angostura, Rio Orinoco, and Iquitos, Peru; Brigham, l.c., 1885, p. 118—Anabiju River, Marajó, Brazil (embryology); Taczanowski, Orn. Pér., 3, p. 262, 1886—Cashiboya, Peru; Harting, Ibis, 1886, p. 98 (embryology); W. L. Sclater, l.c., 1887, p. 319—Canje Creek, Berbice River, British Guiana; Quelch, l.c., 1888, p. 378—same locality; Young, Not. Leyden Mus., 10, p. 169, pl. 8, 1888 (nesting habits, anatomy); Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1889—lower Beni, Bolivia; Beddard, Ibis, 1889, p. 283 (anatomy); Quelch, Ibis, 1890, p. 327—Abury River, British Guiana (habits); Parker, Trans. Zool. Soc. Lond., 13, p. 43, pls. 7–10, 1891 (anatomy); Riker and Chapman, Auk, 8, p. 162, 1891—near Santarém, Rio Tapajóz; Gadow, Proc. Roy. Irish Acad., (3), 2, p. 147, pls. 7, 8, 1892 (crop, sternum); Goeldi, Orn. Monatsber., 3, p. 67, 1895 (young); idem, Bol. Mus. Goeldi, 1, p. 167, 1895 (young); Austen, Proc. Zool. Soc. Lond., 1896, p. 773—Paraná de Bayassú, lower Amazon, Brazil; Loat, Ibis, 1898, p. 566—Berbice River; Goeldi, l.c., 1903, pp. 497, 500—Rio Capim, Pará; Ihering, Rev. Mus. Paul., 6, p. 451, 1905—Rio Juruá, Brazil; idem, Cat. Faun. Braz., 1, p. 26, 1907—Rio Juruá; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 88, 1910—below Colonia Floriano, Rio Parnahyba, Piahy.

Opisthocomus hoazin Ogilvie-Grant, Cat. Bds. Brit. Mus., 22, p. 524, 1893—Pará, Cayenne, British Guiana (Berbice River), Colombia (“Bogotá”), Peru (Iquitos), and Ecuador (Rio Copataza); idem, Handb. Game-Bds., 2, p. 259, 1897 (monog.); Berlepsch and Hartert, Nov. Zool., 9, p. 122, 1902—Caicara, Orinoco, Venezuela; Hellmayr, l.c., 15, p. 99, 1908—Rio Araguaya, Goyáz; Berlepsch, l.c., p. 297, 1908—Approuague River, French Guiana; Beebe, Zoologica (N.Y.), 1, p. 45, 1909 (ecology); idem, l.c., 1, p. 73, 1909—Guarapiche River, Orinoco Delta; Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará and Rio Capim; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 19, 1913—Guinipa River, Orinoco Delta; Snethlage, Bol. Mus. Goeldi, 8, p. 69, 1914—Pará, Ilha das Onças, Santo Antonio do Prata, and Marajó, Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 357, 1916—Orinoco region (habits, eggs descr.); Chubb, Bds. Brit. Guiana, 1, p. 51, 1916—Abury and Berbice rivers; Chapman, Bull. Amer. Mus. N. H., 36, p. 216, 1917—Florença, Villavicencio, and Barrigon, Colombia; Delacour, Ibis, 1923, p. 139—Rio Portuguesa and Rio Apure, Venezuela; Chapman, Bull. Amer. Mus. N. H., 55, pp. 174, 736, 1926—Rio Curaray, eastern Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 151, 1928—Rio Inhangapy and Pará, Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 475, 1929—Tury-assú, Maranhão; Naumburg, Bull. Amer. Mus. N. H., 60, p. 71, 1930—Rio Solimões and Rio Madeira (Calama); Berlioz, Bull.

Mus. Hist. Nat. Paris, (2), 4, p. 236, 1932—Sarayacu, Ecuador; Peters, Bds. World, 2, p. 141, 1934 (range); Wetmore, Proc. U. S. Nat. Mus., 87, p. 189, 1939—Rio Guarico, Guarico, Venezuela.

Range.—Amazonian forest from eastern Colombia, the Orinoco basin, and the Guianas through eastern Ecuador, eastern Peru, and northern Brazil to central Bolivia, Matto Grosso, and Goyáz (sources of the Rio Araguaya), east to the Rio Parnahyba, Piauhý.¹

Field Museum Collection.—31: British Guiana (New Amsterdam, 13; unspecified, 1); Brazil (Murutucú, Rio Guamá, Pará, 4; Obidos, Pará, 1; Tury-assú, Maranhão, 1); Peru (Lagunas, Loreto, 1); Ecuador (Concepción, Oriente, 8); Bolivia, Santa Cruz (Rio Surutu, 1; Buenavista, 1).

Order GRUIFORMES. Cranes, Rails, and Allies

Suborder GRUES. Cranes, Rails, and Limpkins

Family GRUIDAE. Cranes

Subfamily GRUINAE. Cranes

Genus GRUS Pallas

Grus Pallas, Misc. Zool., p. 66, 1766—type, by tautonymy, *Ardea grus* Linnaeus (cf. Opinions Intern. Comm. Zool. Nomencl., No. 103).

Megalornis G. R. Gray, List Gen. Bds., 2nd ed., p. 85, 1841—type, by orig. desig., *Ardea grus* Linnaeus.

Limnogeranus Sharpe, Bull. Brit. Orn. Cl., 1, p. xxxvii, March, 1893—type, by orig. desig., *Ardea americana* Linnaeus.

**Grus canadensis canadensis* (Linnaeus). LITTLE BROWN CRANE.

Ardea canadensis Linnaeus, Syst. Nat., 10th ed., 1, p. 141, 1758—based on "The Brown and Ash-colour'd Crane" Edwards, Nat. Hist. Bds., 3, p. 133, pl. 133; Hudson's Bay.

Grus fusca Vieillot,² Nouv. Dict. Hist. Nat., nouv. éd., 13, p. 558, 1817—new name for *Ardea canadensis* Latham (Ind. Orn., 2, p. 675, 1790)=*Ardea canadensis* Linnaeus.

Grus poliophaea Wagler, Syst. Av., 1, fol. 14, sp. 7, 1827—new name for *Ardea canadensis* Linnaeus.

¹ Holmberg's sight record from Misiones (cf. Holmberg, Seg. Censo Republ. Arg., p. 555, 1898; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 195, 1910) needs corroboration by specimens.

² Though Vieillot also includes the Florida Crane, his name, proposed as a substitute for *Ardea canadensis* Latham, which refers exclusively to the Little Brown Crane, becomes a pure synonym of Linnaeus's term.

Grus cinerea longirostris Temminck and Schlegel, in Siebold, Faun. Jap., Aves, p. 117, pl. 72, 1849—Japan (type in Leiden Museum).¹

Grus fraterculus Cassin, in Baird, Cassin, and Lawrence, Rep. Expl. Surv. Pacif., 9, pp. "553" [=653], 656, 1858—Albuquerque, New Mexico (type in U. S. National Museum; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 28, 1899;=young).

Grus schlegelii Blyth, Field, 42, p. 419, 1873—new name for *Grus cinerea longirostris* Temminck and Schlegel.

Grus niediecki Reichenow, Orn. Monatsber., 14, p. 190, 1906—Anadyr Bay, coast of eastern Siberia (type in Berlin Museum).

Grus canadensis Sharpe, Cat. Bds. Brit. Mus., 23, p. 256, 1894—Hudson's Bay, Alaska (St. Michaels), and Texas (San Antonio, Corpus Christi); Blaauw, Monog. Cranes, p. 21, pl. 6, 1897 (includes all races); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 336, 1903 (in part); Cooke, Bull. U. S. Dept. Agr., 128, p. 7, 1914 (distr., migr.); Brooks, Bull. Mus. Comp. Zool., 59, p. 388, 1915—Providence Bay, Siberia (June), and St. Lawrence Island, Alaska (June 27); Mailliard, Condor, 23, p. 30, 1921—Los Baños, Merced County, California (meas.); Swarth, Pac. Coast Avif., 22, p. 26, 1934—Nunivak Island (August, September).

Grus canadensis canadensis Brasil, in Wytzman, Gen. Avium, 19, pp. 3, 4, 1913 (range); Friedmann, Proc. U. S. Nat. Mus., 80, art. 12, p. 16, 1932—St. Lawrence Island, Bering Sea; Peters, Bds. World, 2, p. 151, 1934 (range).

Grus spec. (?) Thayer and Bangs, Proc. N. Engl. Zool. Cl., 5, p. 25, 1914—east of Cape Bolshaja Baranov (July 18), Balagan (July 19), and Sebiddij Sound, Siberia.

Megalornis canadensis canadensis Hartert, Vög. Pal. Fauna, 3, p. 1817, 1921 (monog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 86, 1928—northern Lower California (winter visitant).

Range.—Breeds on the Arctic coast of eastern Siberia (Chukchi Peninsula and Anadyr), on St. Lawrence Island, and from northern and western Alaska, Melville and Baffin Islands south to the southern mainland of Alaska, southern Mackenzie, and Hudson Bay; winters from California and Texas south to northern Lower California and central Mexico; accidental in Japan.

Field Museum Collection.—1: Alaska (unspecified, 1).

Conover Collection.—6: Alaska (Hooper Bay, Bering Sea, 6).

****Grus canadensis tabida* (Peters).² SANDHILL CRANE.**

¹ Sharpe (Bull. Brit. Orn. Cl., 1, p. xliii, 1893) claims the type to be a specimen of "*G. mexicana*" [= *G. c. pratensis*], which can hardly be correct.

² *Grus canadensis tabida* (Peters): Similar to *G. c. pratensis*, but paler throughout, especially on the occiput and back of neck, which are pallid mouse gray to pale mouse gray instead of light mouse gray to mouse gray; the posterior under parts appreciably grayer.

Megalornis canadensis tabida Peters, Auk, 42, p. 122, 1925—Valley of the South Fork of the Humboldt River, Nevada (type in Museum of Comparative Zoology, Cambridge, Mass.).

Megalornis c.-woodi H. H. Bailey, Bailey Mus. Libr. Nat. Hist., Bull., 4, p. [2], April 1, 1930—Peninsula of Michigan (type in coll. of H. H. Bailey, Bailey Museum and Library of Natural History, Miami, Florida).

Grus mexicana (not *Ardea mexicana* Müller)¹ Sharpe, Cat. Bds. Brit. Mus., 23, p. 254, 1893—part, spec. c, Orcas Island, Vancouver; Cooke, Bull. U. S. Dept. Agr., 128, p. 10, 1914 (part, distr., migr.); Oberholser, Auk, 38, p. 80, 1921 (crit.); Mailliard, Condor, 23, p. 30, 1921—Merced County, California (meas.).

Grus canadensis mexicana Brasil, in Wytsman, Gen. Avium, 19, p. 4, 1913 (in part).

Megalornis canadensis pratensis (not *Grus pratensis* Meyer) Hartert, Vög. Pal. Fauna, 3, p. 1818, 1921—part, British Columbia to Ohio and California.

Grus canadensis tabida Peters, Bds. World, 2, p. 151, 1934 (range).

Range.—Formerly bred from British Columbia east to western Ontario and south to northern California, Colorado, Nebraska, and Ohio; now breeds chiefly from British Columbia to Manitoba and south to northern California, Wisconsin, and Michigan; winters from California, Texas, and Louisiana south to Mexico.

Field Museum Collection.—1: Texas (Padry Island, 1).

Conover Collection.—6: Alberta (Fawcett, 1); Oregon (Adel, Lake County, 2); Texas (Raymondsville, Willacy County, 3).

****Grus canadensis pratensis* F. A. A. Meyer. FLORIDA CRANE.**

Grus pratensis F. A. A. Meyer, Zool. Annalen, 1, pp. 286, 296, 1794—based on "*Grus pratensis* corpore cinereo, vertice papilloso, the great Savanna Crane" Bartram, Travels, p. 293; "Alachua Savanna"—Clay County, Florida.

Grus mexicana (not of P. L. S. Müller) Sharpe, Cat. Bds. Brit. Mus., 23, p. 254, 1894—part, spec. d-l, Tarpon Springs and De Soto County, Florida; Cooke, Bull. U. S. Dept. Agr., 128, p. 10, 1914 (in part; distr., migr.).

Megalornis canadensis pratensis Hartert, Vög. Pal. Fauna, 3, p. 1118, 1921—part, Louisiana and Florida; Peters, Auk, 42, p. 121, 1925—Florida (crit., meas.).

Megalornis canadensis mexicana Howell, Bds. Alabama, p. 84, 1924—Alabama (Foley and Perdido Bay, Baldwin County).

Grus canadensis pratensis Peters, Bds. World, 2, p. 152, 1934 (range); Oberholser, Bird Life Louisiana, p. 196, 1938—Cameron Parish (breeding);

¹ *Ardea (Grus) mexicana* P. L. S. Müller (Natursyst., Suppl., p. 110, 1776—"Mexico") cannot be identified with certainty from the rather vague description ("aschgrau, obenher am Kopf rot und hat schwarze Ruderfedern"), since both *G. c. canadensis* and *G. c. tabida* occur, at least on migration, in the area occupied by Mexico at Müller's time (cf. Peters, Auk, 42, p. 121, 1925).

McIlhenny, Auk, 55, p. 598, pls. 21, 22, 1939—near Fontainebleau Farm, Mississippi (breeding).

Range.—Southern Georgia (Okefinokee Swamp) and peninsular Florida; also southern Louisiana, Mississippi, and Alabama.¹

Field Museum Collection.—4: Florida (Palm Beach, 1; unspecified, 3).

Grus canadensis nesiotes Bangs and Zappey.² INSULAR CRANE.

Grus nesiotes Bangs and Zappey, Amer. Natur., 39, p. 193, 1905—La Vega, Isle of Pines, near Cuba, Greater Antilles (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 178, 1930).

Grus poliophaea (not of Wagler) Lembeye, Av. Cuba, p. 80, 1850—Cuba.

Grus canadensis (not *Ardea canadensis* Linnaeus) Gundlach, Journ. Orn., 4, p. 339, 1856—Cuba; idem, Rep. Fis. Nat. Cuba, 1, p. 347, 1866—Cuba; idem, Journ. Orn., 23, p. 293, 1875—Cuba (Cienaga de Zapata, etc.) and Isle of Pines (habits, nest, eggs).

Grus mexicana (not *Ardea mexicana* P. L. S. Müller) Cory, Auk, 5, p. 50, 1888—Cuba; idem, Bds. W. Ind., p. 251, 1889—Cuba; idem, Cat. W. Ind. Bds., p. 90, 1892—Cuba and Isle of Pines; Cooke, Bull. U. S. Dept. Agr., 128, p. 10, 1914—part, Cuba and Isle of Pines.

Grus mexicana nesiotis Todd, Ann. Carnegie Mus., 10, p. 205, 1916—Los Indios, Isle of Pines, and Puerto Principe, Cuba (crit.).

Grus mexicanus nesiotes Barbour, Mem. Nutt. Orn. Cl., 6, p. 58, 1923—Isle of Pines and Cuba (Pinar del Rio, Matanzas Province, etc.).

Megalornis canadensis nesiotis Hartert, Vög. Pal. Fauna, 3, p. 1818, 1921—Isle of Pines and Cuba.

Grus canadensis nesiotes Peters, Bds. World, 2, p. 152, 1934 (range).

Range.—Resident on the Isle of Pines and in western Cuba, Greater Antilles.

***Grus americanus** (Linnaeus). WHOOPING CRANE.

Ardea americana Linnaeus, Syst. Nat., 10th ed., 1, p. 142, 1758—based on "The Hooping Crane" Catesby, Nat. Hist. Carolina, 1, p. 75, pl. 75, and "The Hooping-Crane from Hudson's Bay" Edwards, Nat. Hist. Bds., 3, p. 132, pl. 132; Hudson's Bay (ex Edwards) regarded as type locality.

¹ Cranes from Louisiana and Alabama have never been critically studied, but for geographical reasons they may be expected to pertain to the Florida race.

² *Grus canadensis nesiotes* Bangs and Zappey: Similar to *G. c. pratensis*, but slightly darker and less purely gray above; smaller, with shorter tarsus; bill somewhat stouter and heavier. Wing, 460–474, (female) 425–432; tail, 171–187, (female) 165–171; tarsus, 204–209, (female) 187–198; bill, 123–125, (female) 100–110.

A single Cuban adult "female" was found by Todd to be somewhat larger in all proportions than birds from the Isle of Pines, but it may have been wrongly sexed.

Grus struthio Wagler, Syst. Av., 1, fol. 14, spec. 6, 1827—new name for *Ardea americana* Linnaeus.

Grus hoyianus Dudley, Proc. Acad. Nat. Sci. Phila., 7, p. 64, 1854—Sugar River, Dane County, Wisconsin (type in coll. of Wisconsin Natural History Association); Hartlaub, Journ. Orn., 3, p. 336, 1855 (crit.; = young).

Limnogeranus americanus Sharpe, Cat. Bds. Brit. Mus., 23, p. 259, 1894 (monog.); Brasil, in Wytzman, Gen. Avium, 19, p. 5, pl. 1, fig. 5, 1913 (range).

Grus americana Blaauw, Monog. Cranes, p. 17, pl. 5, 1897 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 337, 1903—North America to Mexico; Cooke, Bull. U. S. Dept. Agr., 128, p. 4, 1914 (distr.; migr.); Peters, Bds. World, 2, p. 152, 1934 (range).

Range.—Bred, formerly, from Mackenzie east to Hudson Bay and south to Nebraska and Iowa; now breeds only in a few localities in southern Mackenzie and northern Saskatchewan; wintered, formerly, from the Gulf states to central Mexico; now winters exclusively in southeastern Texas.

Field Museum Collection.—9: North Dakota (Rolette County, 1); Kansas (Blue Rapids, 1); Texas (Padry Island, 1); unspecified, 6.

Conover Collection.—4: Manitoba (Whitewater Lake, 1); Illinois (Old Apple River, Jo Daviess County, 2); Nebraska (Red Deer Lake, Cherry County, 1).

Family ARAMIDAE. Limpkins

Genus ARAMUS Vieillot

Aramus Vieillot, Anal. Nouv. Orn. Elém., p. 58, April, 1816—type, by monotypy, “Courliri” Buffon = *Ardea scolopacea* Gmelin = *Scolopax guarauna* Linnaeus.

Notherodius Wagler, Syst. Av., 1, fol. 10, [p. 3], 1827—type, by monotypy, *Notherodius guarauna* Wagler = *Ardea scolopacea* Gmelin.

**Aramus guarauna guarauna* (Linnaeus). SOUTHERN LIMPkin.

Scolopax guarauna Linnaeus, Syst. Nat., 12th ed., 1, p. 242, 1766—based on “Le Courly brun d’Amérique” Brisson, Orn., 5, p. 330, and “Guarauna” Marcgrave, Hist. Nat. Bras., p. 204; “in America australi” (type, from Cayenne, in Réaumur Collection).¹

¹ There is no doubt that *Scolopax guarauna* has been wrongly identified by authors. Schneider (Journ. Orn., 86, p. 85, 1938) recently found Marcgrave’s original drawing of “Guarauna” to represent the Southern Limpkin, but his contention that Brisson’s description referred to the White-faced Ibis, which has never been met with, even as a straggler, in South America north of the Amazon, cannot be maintained. Brisson’s description is not altogether satisfactory in every detail. However, when comparing color terms and dimensions with his account of “Le Courly verd” (Orn., 5, p. 326, pl. 27, fig. 2; = *Plegadis falcinellus* in winter plumage), it becomes quite evident that the bird sent from Cayenne by Mr. des Essars to the Réaumur Collection cannot have been anything but a limpkin.

- Ardea scolopacea* Gmelin, Syst. Nat., 1, (2), p. 647, 1789—based on "Le Courliri ou Courlan" Buffon, Hist. Nat. Ois., 7, p. 442, and Daubenton, Pl. Enl., pl. 848, Cayenne; Des Murs, Mag. Zool., (2), 6, pl. 46, 1844 (aff., egg descr.).
- Aramus carau* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 300, 1817—based on "Carau" Azara, No. 366; Paraguay.
- Rallus gigas* Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 79, 1823—based on *Ardea scolopacea* Gmelin and Azara, No. 366; Montevideo and São Paulo.
- Rallus ardeoides* Spix, Av. Spec. Nov. Bras., 2, p. 72, pl. 91, 1825—"prope pagum Contendas vel Riachão in provincia Minas Geraes," Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, p. 711, 1906).
- Notherodius guarauna* Wagler, Syst. Av., 1, fol. 10, [p. 5], 1827 (descr.).
- Numenius Carauna* [sic] Wied, Reise Bras., 1, p. 320 (8vo ed., p. 317), 1820; l.c., 2, p. 340 (8vo ed., p. 338), 1821—Belmonte, Bahia.
- Numenius guarauna* Wied, Beitr. Naturg. Bras., 4, (2), p. 777, 1833—south-eastern Brazil.
- Notherodius scolopaceus* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 759, 1849—coast district of British Guiana.
- Aramus scolopaceus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 8, p. 301, 1817—Cayenne; Burmeister, Syst. Uebers. Th. Bras., 3, p. 380, 1856—Brazil; idem, Journ. Orn., 8, p. 261, 1860—Rio Paraná, Argentina; idem, Reise La Plata St., 2, p. 504, 1861—Rio Paraná; Sclater, Proc. Zool. Soc. Lond., 28, p. 290, 1860—Babahoyo, Ecuador; Schlegel, Mus. Pays-Bas, Ralli, p. 7, 1865—Cayenne and Surinam; Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 160—Conchitas, Buenos Aires; Pelzeln, Orn. Bras., 3, p. 314, 1870—São Paulo (Porto do Rio Paraná), Goyáz (Porto do Rio Araguay), Matto Grosso (Caicara), and Rio Branco (Forte do São Joaquim), Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 46 (not observed in Minas Geraes); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 308—Rio Ucayali, Peru; Berlepsch, Journ. Orn., 22, p. 273, 1874—Blumenau, Santa Catharina; Doering, Period. Zool. Arg., 1, p. 256, 1874—Rio Guayquiraro, Corrientes; Hudson, Proc. Zool. Soc. Lond., 1876, p. 102—Buenos Aires (habits); Durnford, Ibis, 1877, p. 196—Buenos Aires (breeding habits); Gibson, l.c., 1880, p. 160—Cape San Antonio, Buenos Aires (nesting habits); Barrows, Auk, 1, p. 277, 1884—Concepción del Uruguay, Entre Ríos; Berlepsch, Ibis, 1884, p. 440—Angostura, Orinoco, Venezuela; idem and Ihering, Zeits. Ges. Orn., 2, p. 181, 1885—Taquara, Rio Grande do Sul; Salvin, Ibis, 1886, p. 177—British Guiana (ex Schomburgk); Taczanowski, Orn. Pér., 3, p. 387, 1886—Ucayali River, Peru; Berlepsch, Journ. Orn., 35, p. 35, 1887—Rio Pilcomayo, Paraguay; Sclater and Hudson, Arg. Orn., 2, p. 159, 1889 (habits); Holland, Ibis, 1890, p. 425—Est. Espartillar, Buenos Aires; Kerr, l.c., 1891, p. 270—lower Pilcomayo; idem, l.c., 1892, p. 149—Fortín Nueva and Fortín Page, Rio Pilcomayo; Holland, l.c., 1892, p. 210—Est. Espartillar; Chapman, Bull. Amer. Mus. N. H., 6, p. 80, 1894—Trinidad; Sharpe, Cat. Bds. Brit. Mus., 23, p. 237, 1894—British Guiana

- and Matto Grosso (Caiçara); Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 24, 1895—Corumbá, Matto Grosso; Goeldi, Ibis, 1897, p. 160—Counany, Pará, Brazil; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 148, 1899—Mundo Novo and Barra do Rio Camaquã, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 420, 1899—São Paulo; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 41, 1900—Balzar, Ecuador, and Laguna della Pita, Darien, Panama; Kerr, Ibis, 1901, p. 234—Paraguayan Chaco; Berlepsch and Hartert, Nov. Zool., 9, p. 128, 1902—Altagracia, Rio Orinoco, Venezuela; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 212, 1902—Rio Salí, Lules, and Famaillá, Tucumán; Lönnberg, Ibis, 1903, p. 460—Tatarenda, Tarija, Bolivia; Baer, Ornith., 12, p. 230, 1904—Santa Ana and Tapia, Tucumán; André, Natur. Guianas, p. 274, 1904—above Para Falls, Caura, Venezuela; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 67, 1905—Tucumán; Hagmann, Zool. Jahrb., (Syst.), 26, p. 43, 1907—Mexicana, Brazil; Ihering, Cat. Faun. Braz., 1, p. 58, 1907—São Paulo (Itapura, Ubatuba) and Santa Catharina (Colonia Hansa); Penard, Vog. Guyana, 1, p. 218, 1908—Surinam; Berlepsch, Nov. Zool., 15, p. 300, 1908—Cayenne; Beebe, Zoologica (N.Y.), 1, p. 75, 1909—Orinoco Delta; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 222, 1910 (range in Argentina); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 93, 1910—Parnaguá, Piauí; Grant, Ibis, 1911, p. 463—Pão de Azúcar, Matto Grosso; Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 83, 97, 122, 1912—Rio Acará and Mexicana, Pará; Snethlage, Bol. Mus. Goeldi, 8, p. 96, 1914—Pará and Marajó; Bertoni, Faun. Parag., p. 39, 1914—Mondañh and Iguassú, Paraguay; Chubb, Bds. Brit. Guiana, 1, p. 141, 1916—upper Takutu Mountains, Supenaam, Bonasika, Kamakabra Creek, and Abary River; Hussey, Auk, 33, p. 388, 1916—La Plata; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 367, 1916—Altagracia, Rio Orinoco; Gibson, Ibis, 1920, p. 50—Cape San Antonio, Buenos Aires (habits, nest, and eggs); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 43, 1922—Lagunillas, Mérida, and Catatumbo, Zulia, Venezuela; Dabbene, El Hornero, 2, p. 227, 1921—Rosas, Buenos Aires (foster of *Heteronetta atricapilla*); Serié, l.c., 3, p. 191, 1923—Pradero (F.C.O.), Argentina; Delacour, Ibis, 1923, p. 140—Apure and Portuguesa rivers, Venezuela; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 153, 1928—Pará.
- Aramus guarauna* Des Murs, in Castelnau, Expéd. Amér. Sud, Zool., 1, Ois., p. 87, 1856 (aff., eggs descr.); Léotaud, Ois. Trinidad, p. 489, 1866—Trinidad.
- Aramus scolopaceus scolopaceus* Hartert and Venturi, Nov. Zool., 16, p. 249, 1909—Buenos Aires (Est. de San Martino Monte, Barracas al Sud) and Santa Fé (San Vicente); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 42, 1918—Paramaribo, Surinam; Dabbene, El Hornero, 1, p. 91, 1918—Isla San Martín García, Buenos Aires; Todd and Carriker, Ann. Carnegie Mus., 14, p. 177, 1922—Bonda, Fundación, Gaira, and Trojas de Cataca, Santa Marta, Colombia; Chapman, Bull. Amer. Mus. N. H., 55, p. 202, 1926—Ecuador (west of Yaguachi; head of Santa Rosa River; Puná Island); Darlington, Bull. Mus. Comp. Zool., 71, p. 37, 1931—Cienaga, Orihueca, Tucurínca, Sevilla, Aracataca, and Rio Frio, Magdalena, Colombia; Roberts, Trop. Agr., 11, p. 90, 1934—Trinidad; Peters,

Bds. World, 2, p. 155, 1934 (range); Belcher and Smooker, Ibis, 1935, p. 280—Trinidad (eggs descr.).

Aramus scolopaceus carau Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 42, 1918—Paraguay and Entre Ríos (crit.); Tremoleras, El Hornero, 2, p. 14, 1920—Uruguay (Canelones, Florida, Treinta y Tres, Cerro Largo); Daguerre, l.c., 2, p. 263, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 41, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., p. 80, 1923—La Rioja; Pereyra, l.c., p. 163, 1923—Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 617, 1924—Prov. Buenos Aires; Peters, Occ. Pap. Bost. Soc. N. H., 5, p. 142, 1925 (crit., range); Wetmore, Bull. U. S. Nat. Mus., 133, p. 126, 1926—Paraguay (Puerto Pinasco), Argentina (Formosa; Lavalle, Buenos Aires), and Uruguay (San Vicente, near Lazcano, Rio Negro); Wilson, El Hornero, 3, p. 353, 1926—General López, Santa Fé; Friedmann, Bull. Mus. Comp. Zool., 68, p. 162, 1927—La Noria, Santa Fé; Naumburg, Bull. Amer. Mus. N. H., 60, p. 402, 1930—Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 70, 1930—Lapango, Formosa (crit.); Peters, Bds. World, 2, p. 155, 1934 (range); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 374, 1934—Descalvados, Matto Grosso; Laubmann, Verh. Orn. Ges. Bay., 20, p. 273, 1934—Est. La Geraldina, Santa Fé; Pinto, Rev. Mus. Paul., 17, (2), p. 715, 1932—Aquidauana, Matto Grosso; idem, l.c., 20, p. 44, 1936—Inhúmas, Goyáz.

Aramus scolopaceus subsp. Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 484, 1929—Parnaguá, Piahy.

Range.—Tropical South America from eastern Panama (Laguna della Pita, Darien) and northern Colombia east through Venezuela, Trinidad, and the Guianas, south through eastern Peru (Ucayali River), Ecuador, and Brazil to Bolivia, Paraguay, Uruguay, and northern Argentina (south to Buenos Aires, Santa Fé, and La Rioja).¹

¹ Further subdivision of the Southern Limpkin appears to be impracticable. There is no difference in coloration between northern and southern specimens and, while dimensions run rather larger in the south, the proportion of the individuals distinguishable by size is too small to warrant recognition of *A. g. carau*. We append the measurements (wing and bill) of twenty sexed adults.

MEASUREMENTS

Males	Wing	Bill
Two from Cayenne	315, 320	105, 110
One from British Guiana	320	100
One from Rio Branco	320	107
One from Parnaguá, Piahy	320	117
Two from Caiçara, Matto Grosso	330, 340	110, 117
One from São Paulo	330	104
One from Santa Catharina	340	110
Three from Paraguay	328, 330, 336	108, 110, 116
Females		
One from Rio Branco	295	100
One from Rio Acará, Pará	315	93
Three from Parnaguá, Piahy	310, 315, 325	98, 100
One from Goyaz	315	93
Two from Santa Catharina	310, 315	100, 108

Forty-five additional specimens examined.

Field Museum Collection.—9: Venezuela (Catatumbo, 2; Maracay, Aragua, 1); British Guiana (Buxton, E. C., Demerara, 3; unspecified, 1); Brazil (Descalvados, 1); Argentina (Concepción, Tucumán, 1).

Conover Collection.—6: Venezuela (Lagunillas, Zulia, 1); Ecuador (Montes del Suno, Prov. Loreto, 2); Brazil (Vaccaria, Matto Grosso, 1); Bolivia (Buenavista, Santa Cruz, 2).

****Aramus guarauna dolosus* Peters.¹ WHITE-WINGED LIMPKIN.**

Aramus pictus dolosus Peters, Occ. Pap. Bost. Soc. N. H., 5, p. 144, 1925—Bolsón, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, Bull. Mus. Comp. Zool., 69, p. 409, 1929—Martinez Creek, Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 302, 1932—Laguna Toloa and west of Tela, Honduras; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 15, 1935—Uxactun, Petén, Guatemala.

Aramus scolopaceus (not *Ardea scolopacea* Gmelin) Moore, Proc. Zool. Soc. Lond., 27, p. 64, 1859—Belize River, British Honduras, and about Omoa, Honduras; Sumichrast, La Naturaleza, 5, p. 229, 1888—Vera Cruz (Alvarado, Uvero) and Oaxaca (Santa Efígenia, Cacoprieto), Mexico.

Aramus scolopaceus var. *giganteus* (not *Rallus giganteus* Bonaparte) Lawrence, Bull. U. S. Nat. Mus., 4, p. 49, 1876—Santa Efígenia, Oaxaca.

Aramus giganteus Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 177, 1886—Santa Ana, Vera Cruz, Mexico; Salvin, Ibis, 1889, p. 378; 1890, p. 89—Cozumel Island; Richmond, Proc. U. S. Nat. Mus., 16, p. 528, 1893—Rio Frio, Costa Rica.

Aramus holostictus (not *Notherodius holostictus* Cabanis) Sclater and Salvin, Ibis, 1859, p. 227—Belize and Omoa; Salvin, l.c., 1870, p. 115—Costa Rica.

Aramus pictus (not *Tantalus pictus* Meyer) Nutting, Proc. U. S. Nat. Mus., 5, p. 409, 1882—La Palma de Nicoya, Costa Rica; idem, l.c., 6, pp. 389, 396, 1883—Sucuyá and Ometépe, Nicaragua; Sharpe, Cat. Bds. Brit. Mus., 23, p. 238, 1893—part, spec. u-w, Mexico (Tlacotalpam; Vera Cruz; Cozumel) and Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 333, 1903—part, Mexico (Vera Cruz) to Costa Rica.

Aramus vociferus (not *Numenius vociferus* Latham) Carriker, Ann. Carnegie Mus., 6, p. 425, 1910—Bolsón and Bebedéro, Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 11, 1919—Laguna de Santa Rosa, Island of Ometépe, Lake Nicaragua, Nicaragua; Griscom and Crosby, Auk, 42, p. 527, 1925—Brownsville, Texas.

Aramus vociferus holostictus Miller and Griscom, Amer. Mus. Nov., 25, p. 13, 1921—part, eastern Mexico to Panama and (accidental) Brownsville, Texas.

¹ *Aramus guarauna dolosus* Peters: Similar to *A. g. pictus*, but white area at the base of the secondaries more developed and extending along the outer web next to the shaft for a considerable distance toward the tip. This character is exceedingly well-marked in six specimens taken by M. Sassi at Bebedéro, Guana-caste, Costa Rica (Vienna Museum).

Aramus vociferus subsp. Griscom, Amer. Mus. Nov., 235, p. 8, 1926—near Chunyaxche, Yucatan.

Aramus scolopaceus dolosus Peters, Bds. World, 2, p. 155, 1934 (range); Deignan, Auk, 53, p. 188, 1936—La Ceiba, Honduras; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 158, 1938—Barra de Santiago, El Salvador.

Range.—Central America from southern Mexico (states of Vera Cruz and Oaxaca) south through British Honduras (Belize River), Guatemala (Uaxactun, Petén), El Salvador (Barra de Santiago), Honduras, and Nicaragua to Costa Rica (Guanacaste and Rio Frio) and western Panama (Bocas del Toro); accidental in Texas (Brownsville, May 29, 1889).¹

Field Museum Collection.—1: Costa Rica (Limón, 1).

Conover Collection.—4: Honduras (La Ceiba, Atlantida, 1); Costa Rica (Bebedéro, Guanacaste, 2); Panama (Cricamola, Bocas del Toro, 1).

****Aramus guarauna elucus* Peters.² HISPANIOLAN LIMPKIN.**

Aramus pictus elucus Peters, Occ. Pap. Bost. Soc. N. H., 5, p. 143, 1925—Sosúa, Dominican Republic (type in Museum of Comparative Zoology, Cambridge, Mass.); Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 333, 1927—Porto Rico; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 494, 1928—Haiti, Gonave, and Tortue; Danforth, Auk, 46, p. 362, 1929—Bonao and Villa Alta Gracia, Hispaniola; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 128, 1931—Hispaniola; Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 15, 1932—Montet, near Port-au-Prince, Haiti; idem and Lincoln, l.c., 82, art. 25, p. 22, 1933—Damien, Haiti.

Aramus scolopaceus (not *Ardea scolopacea* Gmelin) Sallé, Proc. Zool. Soc. Lond., 25, p. 236, 1857—San Domingo.

Aramus giganteus (not *Rallus giganteus* Bonaparte) Bryant, Proc. Bost. Soc. N. H., 10, p. 257, 1866—Porto Rico; idem, l.c., 11, p. 97, 1867—Dominican Republic; Sundevall, Oefv. Vetensk. Akad. Handl., 26, p. 601, 1869—Puerto Rico; Gundlach, Anal. Soc. Esp. Hist. Nat., 7, p. 387, 1878—Puerto Rico (habits); idem, Journ. Orn., 26, pp. 162, 189, 1878—Lares, Quebradillas, and Utuado, Porto Rico; Cory, Auk, 5, p. 50, 1888—part, Porto Rico and Haiti; idem, Bds. W. Ind., p. 251, 1889—part, Porto Rico and Haiti; Tristram, Cat. Coll. Tristram, p. 267, 1889—Almercen, Hispaniola; Cory, Cat. W. Ind. Bds., p. 90, 1892—part, Haiti and Porto Rico; Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 356, 1909—Dominican Republic; Wetmore, Bull. U. S. Dept. Agr., 326, p. 37, 1916—northern

¹ The Brownsville specimen was found by Peters (Bull. Mus. Comp. Zool., 69, p. 409, 1929) to be the Central American race.

² *Aramus guarauna elucus* Peters: Similar to *A. g. pictus*, but on average smaller, and with the white markings less extensive in the interscapular region, and absent or reduced to narrow shaft-streaks on the upper wing coverts.

No material seen from Puerto Rico.

slope of El Yunque, between Adjuntas and Maricao, and near Utuado, Porto Rico.

Aramus scolopaceus giganteus Cory, Bull. Nutt. Orn. Cl., 6, p. 155, 1881—Haiti.

Aramus pictus (not *Tantalus pictus* Meyer) Cory, Bds. Haiti and San Domingo, p. 157, 1884—Gantier and near Samaná, Hispaniola; Sharpe, Cat. Bds. Brit. Mus., 23, p. 238, 1894—part, spec. y, Haiti.

Aramus pictus pictus Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 311, 1929—Rio Yuna and Bonao, Haiti.

Aramus vociferus (not *Numenius vociferus* Latham) Peters, Bull. Mus. Comp. Zool., 61, p. 403, 1917—Sosúa, Dominican Republic.

Aramus vociferus holostictus (not *Notherodius holostictus* Cabanis) Miller and Griscom, Amer. Mus. Nov., 25, p. 12, 1921—part, Haiti.

Aramus scolopaceus elucus Peters, Bds. World, 2, p. 155, 1934 (range).

Range.—Islands of Hispaniola and Puerto Rico, Greater Antilles.

Field Museum Collection.—3: Dominican Republic (Santo Domingo, Samaná, 1; Almercen, 1); Haiti (Le Coup, 1).

****Aramus guarauna pictus* (F. A. A. Meyer). LIMPKIN.**

Tantalus pictus "Bartram" F. A. A. Meyer, Zool. Annalen, 1, p. 287, 1794—based on "*Tantalus pictus*, the crying bird" Bartram, Travels, pp. 147, 293; St. Johns River, Florida.

Numenius vociferus Latham, Ind. Orn., Suppl., p. lxxv, 1801—based on "Epouskyca" Bartram, Travels, p. 145, 1791; Florida and Georgia.

Rallus giganteus Bonaparte, Journ. Acad. Nat. Sci. Phila., 5, p. 31, 1825—"South America" and Long Branch, New Jersey.¹

Aramus scolopaceus (not *Ardea scolopacea* Gmelin) Vigors, Zool. Journ., 3, p. 447, 1827—Cuba; Gosse, Bds. Jamaica, p. 355, 1847—Jamaica (habits); Maynard, Bds. East. N. Amer., p. 425, 1879—Florida (habits).

Notherodius scolopaceus Gundlach, Journ. Orn., 4, p. 426, 1856—Cuba; idem, l.c., 10, p. 89, 1862—Cuba (crit.).

Notherodius guarauna (not of Wagler, 1827) Wagler, Isis, 1829, col. 657—Cuba.

Aramus guarauna d'Orbigny, in Sagra, Hist. Ile de Cuba, Orn., p. 256, 1839—Cuba.

Notherodius holostictus Cabanis, Journ. Orn., 4, p. 426, 1856—Cuba (type in Berlin Museum).

Aramus giganteus Baird, Rep. Expl. Surv. Pac. R. R., 9, p. 657, 1858—Indian Key, Florida (crit.); Sclater, Proc. Zool. Soc. Lond., 1861, p. 81—Jamaica; Taylor, Ibis, 1862, p. 129—Florida; Cory, Auk, 5, p. 50, 1888—part, Jamaica and Cuba; idem, Bds. W. Ind., p. 251, 1889—part, Jamaica and

¹ Bonaparte's name was based on two specimens in "the New York Museum," one of which was "brought alive from South America," while "the other was shot at Long Branch, New Jersey." The description, however, seems better to fit the North American Limpkin.

- Cuba; Scott, Auk, 6, p. 152, 1889—Gulf coast of Florida; idem, l.c., 9, pp. 11, 212, 1892—Westmoreland, Jamaica, and Caloosahatchie, Florida; Cory, Cat. W. Ind. Bds., p. 90, 1892—part, Cuba, Isle of Pines, and Jamaica; Chapman, Bull. Amer. Mus. N. H., 4, p. 288, 1892—San Pablo, Cuba; Field, Auk, 11, p. 122, 1894—about Port Henderson, Jamaica; Riley, in Shattuck, The Bahama Islands, p. 360, 1905—Cay Lobos, Bahamas.
- Aramus pictus* Coues, Proc. Acad. Nat. Sci. Phila., 1875, p. 354 (nomencl.); Sharpe, Cat. Bds. Brit. Mus., 23, p. 238, 1894—part, spec. a-t, x, Florida and Jamaica.
- Aramus giganteus holostictus* Bangs and Zappey, Amer. Natur., 39, p. 194, 1905—Cienaga, Isle of Pines (crit.).
- Aramus vociferus* Todd, Ann. Carnegie Mus., 10, p. 204, 1916—Nueva Gerona and Pasadita, Isle of Pines (crit.); Howell, Auk, 38, p. 254, 1921—Royal Palm Hammock, Florida; Barbour, Mem. Nutt. Orn. Cl., 6, p. 57, 1923—Cuba; Bent and Copeland, Auk, 44, p. 377, 1927—Wekiva and Waekiwachee rivers, Florida.
- Aramus vociferus vociferus* Miller and Griscom, Amer. Mus. Nov., 25, p. 13, 1921—southern Florida and Georgia; Christy, Auk, 45, p. 287, 1928—Everglades, Florida.
- Aramus pictus pictus* Peters, Occ. Pap. Bost. Soc. N. H., 5, p. 142, 1925—Florida, Cuba, Isle of Pines, and Jamaica (crit.); idem, Bds. World, 2, p. 155, 1934 (range).

Range.—Southern Georgia (Okefinokee Swamp) and peninsular Florida west to the Wakulla River; Cuba, Isle of Pines, and Jamaica; casual in South Carolina and the Bahamas (Cay Lobos).

Field Museum Collection.—9: Florida (New River, 1; Palm Beach, 3; Loxahatchee Swamp, 1; Tarpon Springs, 1; Lake Jessup, 1; Kissimmee River, 1; unspecified, 1).

Conover Collection.—1: Florida (Brevard County, 1).

Family PSOPHIIDAE. Trumpeters

Genus PSOPHIA Linnaeus

Psophia Linnaeus, Syst. Nat., 10th ed., 1, p. 154, 1758—type, by monotypy, *Psophia crepitans* Linnaeus.

**Psophia crepitans crepitans* Linnaeus. COMMON TRUMPETER.

Psophia crepitans Linnaeus,¹ Syst. Nat., 10th ed., 1, p. 154, 1758—based exclusively on “*Psophia*” Barrère, Orn. Spec. Nov., p. 62, 1745; French

¹ The generic characters are taken from Barrère's account quoted above, while in the same author's “*Essai sur l'Histoire naturelle de la France Equinoxiale*,” 1741, p. 132, the bird is simply mentioned as “*Gallina sylvatica, crepitans, pectore columbino*.” What Barrère and Linnaeus tell us about its coloration (“*nigra, pectore columbino*”) is altogether insufficient to recognize the species. However, the morphological features, together with the locality and the note on the curious sound uttered by the bird, permit its identification. The “*Macucagua*” of Marcgrave, quoted by Barrère (1741) and Linnaeus in synonymy, refers to *Tinamus solitarius*.

Guiana; Richard and Bernard, Act. Soc. Hist. Nat. Paris, 1, (1), p. 118, 1792—Cayenne; Trail, Mem. Werner. Soc., 5, (2), p. 523, pl. 17, 1826 (anat., larynx); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 751, 1849—British Guiana; Wallace, Travels Amaz. Rio Negro, pp. 170, 473, 1853—three days' journey above Manáos (hab. part, Guiana to the Rio Negro); Slater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—British Guiana to the Rio Negro; Pelzeln, Orn. Bras., 3, p. 298, 1870—Rio Negro (Manáos, Marabitanas, road to Serra do Cocuy) and Rio Branco (Forte do São Joaquim, Serra Caraumán), Brazil; idem, l.c., 4, p. 455, 1870—part, Guiana to the Rio Negro; Blasius, Journ. Orn., 32, pp. 204, 205, 1884 (descr., range); Salvin, Ibis, 1886, p. 177—Camacusa and Rio Atapurau, British Guiana; W. L. Slater, Ibis, 1887, p. 317—Maccasseema, Rio Pomeroon; Sharpe, Cat. Bds. Brit. Mus., 23, p. 279, 1894—British Guiana (Camacusa, Rio Atapurau, Rio Takutú) and Rio Negro; Goeldi, Ibis, 1897, p. 154—Counany, Braz. Guiana; Loat, Ibis, 1898, p. 563—British Guiana; Berlepsch and Hartert, Nov. Zool., 9, p. 128, 1902—Suapuré, lower Caura, Venezuela; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 184, 1904—Maroni River and Rivière Lunier (Haut Carsevenne), French Guiana; Ihering, Cat. Faun. Braz., 1, p. 58, 1907 (range); Penard, Vog. Guyana, 1, p. 222, 1908—Surinam; Berlepsch, Nov. Zool., 15, p. 301, 1908—French Guiana; Beebe, Zoologica (N.Y.), 1, p. 76, 1909—Guanoco, Orinoco Delta; Snethlage, Bol. Mus. Goeldi, 8, p. 97, 1914 (range); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 368, 1916—Las Barrancas and Guanoco, Orinoco Delta, and Suapuré, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 1, p. 144, 1916—Ituribisci River, Supenaam, Bartica, Kamakabra Creek, Bonasika, Mazaruni River, Camacusa, Caramang River, Takutú River, Maccasseema, Matope, and Aremu; Chapman, Bull. Amer. Mus. N. H., 36, p. 227 (in text), 1917—near Mount Duida, upper Orinoco, Venezuela; Beebe, Trop. Wild Life, 1, pp. 128, 247, figs. 77-79 (pullus), 1917—Bartica, British Guiana (descr. of pull., habits).

Grus crepitans Pallas, Misc. Zool., p. 66, Nov., 1766 (descr., anat.).

Grus psophia Pallas, Spec. Zool., fasc. 4, p. 3, pl. 1, 1767 (descr., anat.).

Ardea (Grus) buccinator P. L. S. Müller, Natursyst., Suppl., p. 110, 1776—based on "L'Agami" Buffon (Hist. Nat. Ois., 4, p. 487, pl. 23), Daubenton (Pl. Enl., pl. 169), and Boddaert; Cayenne.

Psophia crepitans crepitans Peters, Bds. World, 2, p. 156, 1934 (range).

Range.—Southern Venezuela (Orinoco Valley and its tributaries); British, Dutch, and French Guiana; northern Brazil north of the Amazon, west to the Rio Negro.¹

Field Museum Collection.—4: British Guiana (Essequibo River, 1; Oko Mountains, Essequibo, 3).

¹ We do not find any constant differences between specimens from the Guianas and others from the Rio Negro.

Additional material examined.—French Guiana: Maroni River, 1; unspecified, 1.—British Guiana: Camacusa, 2.—Venezuela: Suapuré, Caura River, 2.—Brazil: Serra Caraumán, Rio Branco, 2; Forte do São Joaquim, Rio Branco, 1; Manáos, 1; Marabitanas, Rio Negro, 1.

Conover Collection.—12: Brazil (Monte Alegre, Pará, 3; Lago Cuipeua, Pará, 4; Igarapé Arriba, Amazonas, 3); British Guiana (Essequibo River, 1; Oko Mountains, Essequibo, 1).

****Psophia crepitans napensis* Slater and Salvin. NAPO**

TRUMPETER.

Psophia napensis Slater and Salvin, Nomencl. Av. Neotrop., p. 162, 1873—"Aequatoria orientalis, in ripis fl. Napo" (type in British Museum);¹ Blasius, Journ. Orn., 32, pp. 204, 205, 1884 (diag., range); Berlepsch, l.c., 37, p. 100, 1889—Tonantins, Rio Solimões, Brazil; Sharpe, Cat. Bds. Brit. Mus., 23, p. 280, 1894—Rio Napo and Sarayacu, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 42, 1900—Rio Santiago, Ecuador; Goodfellow, Ibis, 1902, p. 231—Rio Napo, Ecuador; Ihering, Cat. Faun. Braz., 1, p. 59, 1907 (range); Sneath, Bol. Mus. Goeldi, 8, p. 98, 1914 (range); Chapman, Bull. Amer. Mus. N. H., 36, p. 227, 1917—La Morelia, Caquetá, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 25, 1922—Rio Curaray, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 203, 1926—Rio Suno and below San José, Ecuador.

"Le Trompeteiro (Agami) Ordinaire . . . *Psophia*" Des Murs, in Castelnau, Expéd. Amér. Sud, Zool., 1, Ois., p. 84, 1856—Tabatinga, Rio Solimões, Brazil.

Psophia(?) Slater, Proc. Zool. Soc. Lond., 26, p. 76, 1858—Rio Napo, Ecuador.

Psophia crepitans (not of Linnaeus) Pelzeln, Orn. Bras., 4, p. 455, 1870—part, left bank of upper Amazons; Taczanowski, Orn. Pér., 3, p. 385, 1886—Iquitos, Peru.

Psophia crepitans napensis Berlioz, Bull. Mus. Nat. Hist. Paris, 33, p. 355, 1927—Rio Suno, Ecuador; Peters, Bds. World, 2, p. 156, 1934 (range).

Range.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia (La Morelia, Caquetá) through eastern Ecuador south to the north bank of the Rio Marañón (Iquitos) and Rio Solimões (Tabatinga, Tonantins) in northeastern Peru and northwestern Brazil.²

Conover Collection.—8: Ecuador (Guamayacu, 1; Morada Pamba, 2; Verde Yaco, 2; Montes del Suno, Loreto, 1; Ouca Yaco, Loreto, 2).

****Psophia leucoptera leucoptera* Spix. WHITE-WINGED**

TRUMPETER.

Psophia leucoptera Spix, Av. Spec. Nov. Bras., 2, p. 67, pl. 84, 1825—"in sylvis campestribus fl. Rio Negro," errore,=left bank of the Rio Madeira, Brazil (cotypes in Munich Museum examined; cf. Hellmayr, Abhandl. 2.

¹ Though not designated as such by Sharpe, spec. a, of the British Museum Collection, is no doubt the type.

² A single female from Tonantins, Rio Solimões, does not appreciably differ from "Bogotá" specimens, with which it was directly compared.

Additional material examined.—Colombia: "Bogotá," 2.—Ecuador: Rio Napo, 2; Rio Santiago, 2.—Brazil: Tonantins, 1.

Kl. Bayr. Akad. Wiss., 22, No. 3, p. 705, 1906); Gray and Mitchell, Gen. Bds., 3, p. 550, pl. cxlviii, 1846; Wallace, Travels Amaz. Rio Negro, p. 473, 1853—south bank of Rio Solimões (São Paulo de Olivença, Ega, Coari); Pelzeln, Sitzungsber. Akad. Wiss. Wien, Math.-naturw. Kl., 24, p. 373, 1857—Cachoeira das Pederneiras, left bank of Rio Madeira, and Lago do Manaqueri, south bank of Rio Solimões, Brazil (spec. examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—south or right bank of the Amazon above the Madeira (Ega, Coari, São Paulo); Pelzeln, Orn. Braz., pp. 299, 455, 1870—Cachoeira das Pederneiras and Lago do Manaqueri (range); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 308—Chamicuros, Peru; Blasius, Journ. Orn., 32, pp. 204, 206, 1884 (diag., range); Taczanowski, Orn. Pér., 3, p. 385, 1886—Peru ("Iquitos," Chamicuros); Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1889—lower Beni, Bolivia; Berlepsch, Journ. Orn., 37, p. 320, 1889—Shanusi (near Yurimaguas), Peru; Sharpe, Cat. Bds. Brit. Mus., 23, p. 280, 1894—Cosnipata, Dept. Cuzco, Peru; Ihering, Rev. Mus. Paul., 6, "1904," p. 451, 1905—Rio Juruá, Brazil; idem, Cat. Faun. Braz., 1, p. 59, 1907—Rio Juruá (range); Hellmayr, Nov. Zool., 14, p. 412, 1907—Humaytá, left bank of Rio Madeira; idem, l.c., 17, p. 422, 1910—left bank of Rio Madeira (Pederneiras, Humaytá); Snethlage, Bol. Mus. Goeldi, 8, p. 98, 1914 (descr.); Chubb, Ibis, 1919, p. 270—San Ernesto, Beni, Bolivia.

"*Trompeteiro à couvertures blanches*" Des Murs, in Castelanu, Expéd. Amér. Sud, Zool., 1, Ois., p. 84, 1856—right bank of the Rio Marañón, Peru.

Psophia cantatrix (Boeck MS.) W. Blasius, Journ. Orn., 32, p. 208, 1884—hot districts on the Mamoré and Beni rivers, northern Bolivia (type, from Rio Securé [=Sicuré], tributary of the Rio Mamoré, Dept. Beni, Bolivia, in Brunswick Museum; cf. Blasius, Journ. Orn., 33, p. 416, 1885).

Psophia leucoptera leucoptera Naumburg, Bull. Amer. Mus. N. H., 60, p. 83, 1930 (range); Peters, Bds. World, 2, p. 156, 1934 (range).

Psophia crepitans leucoptera Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 250, 1930—Puerto Bermúdez, Junín, Peru (crit.).

Range.—Western Brazil and eastern Peru, from the south bank of the Rio Marañón and Rio Solimões (São Paulo de Olivença, Ega [=Teffé], Coary) south to Bolivia (Santa Cruz) and east to the left bank of the Rio Madeira.²

Conover Collection.—13: Brazil, Amazonas (Paraná de Tacaré, 5; Ayaguei, Rio Purús, 1; Canutama, Rio Purús, 3); Peru (Puerto

¹ The specimen in the Raimondi Collection was doubtless incorrectly labeled.

² In spite of Spix giving "Rio Negro" as habitat, his two original examples are exactly similar to birds from the left bank of the Rio Madeira, with which they have been directly compared by the senior author. They were probably tame birds bought by Spix at some village on the Rio Negro. A single individual from Bolivia (*P. cantatrix*) and three from eastern Peru do not seem to differ from an Amazonian series except by somewhat heavier bills.

Additional material examined.—Peru: Shanusi, near Yurimaguas, 1; Juanfué, Rio Huallaga, 1.—Brazil: "Rio Negro," 2; Lago Manaqueri, Rio Solimões, 1; Humaytá, Rio Madeira, 3; Pederneiras, Rio Madeira, 1.—Bolivia: lower Beni, 1.

Bermúdez, Junín, 1; Orosa, Rio Amazonas, 1); Bolivia (Buenavista, Santa Cruz, 1; Rio Ichilo, Santa Cruz, 1).

****Psophia leucoptera ochroptera* Pelzeln.¹ OCHRE-WINGED TRUMPETER.**

Psophia ochroptera Pelzeln, Sitzungsber. Akad. Wiss. Wien, Math.-naturw. Kl., 24, p. 371, 1857—Barcellos, right bank of the Rio Negro, Brazil (co-types in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—Barcellos; Pelzeln, Orn. Bras., pp. 298, 455, 1870—Barcellos; Blasius, Journ. Orn., 32, p. 205, 1884 (diag., range); Sharpe, Cat. Bds. Brit. Mus., 23, p. 281, 1894—Rio Negro; Ihering, Cat. Faun. Braz., 1, p. 59, 1907 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 98, 1914—Rio Negro.

Psophia leucoptera ochroptera Peters, Bds. World, 2, p. 156, 1934 (range).

Range.—Northwestern Brazil, from the right bank of the Rio Negro (Barcellos) south to the north bank of the Rio Solimões (Manacapurú).

Conover Collection.—1: Brazil (Manacapurú, 1).

****Psophia viridis viridis* Spix. GREEN-WINGED TRUMPETER.**

Psophia viridis Spix, Av. Spec. Nov. Bras., 2, p. 66, pl. 83, 1825—"in campis sylvestris ad pagum Villa Nuova" [sic]=Parintins, Ilha de Tupinambaranas, south bank of Lower Amazon, Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 709, 1906); Wallace, Travels Amaz. Rio Negro, p. 473, 1853—part, Borba, right bank of Rio Madeira, and Villa Nova; Pelzeln, Sitzungsber. Akad. Wiss. Wien, Math.-naturw. Kl., 24, p. 375, 1857—Rio Mamoré (Cachoeira da Guajará-guaçu) and Salto Theotônio, Rio Madeira (soft parts); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—south bank of lower Amazon and Rio Madeira; Pelzeln, Orn. Bras., pp. 299, 455, 1870—Cachoeira da Guajará-guaçu, Rio Mamoré, and Salto Theotônio, Rio Madeira (range); Blasius, Journ. Orn., 32, pp. 204, 216, 1884 (diag., range); Sharpe, Cat. Bds. Brit. Mus., 23, p. 281, 1894—part, Rio Madeira

¹ *Psophia leucoptera ochroptera* Pelzeln: Differs from the nominate race by markedly slenderer, less elevated, mainly dusky brown bill, and the coloration of the foreneck, upper wing coverts, and secondaries. The upper wing coverts lack the extensive bright violet blue and golden green gloss, so conspicuous a feature in typical *leucoptera*, there being but comparatively restricted apical edges of coppery reddish or coppery brass-green to the median and greater series in *ochroptera*. The outer secondaries are drab brown, somewhat paler on the outer webs (though still much browner than in *leucoptera*), the inner ones and the elongated scapulars brownish buff, inclining to isabella color towards the mantle; the upper back is dull black without purplish reflections, while the foreneck is much less purplish. Bill, 35–36 mm.

While Mr. Zimmer is probably right in considering the *P. leucoptera* complex as conspecific with *P. crepitans*, we would like to have more definite information about the ranges of the two trumpeters found on the Rio Negro, *P. c. crepitans* and *P. l. ochroptera*, before accepting his dictum.

Additional material examined.—Brazil: Barcellos, Rio Negro, 4; Manacapurú, 1.

to Rio Mamoré; Ihering, Cat. Faun. Braz., 1, p. 59, 1907—Matto Grosso; Hellmayr, Nov. Zool., 17, p. 422, 1910—Maroins, Rio Machados, easterly tributary of Rio Madeira; Snethlage, Bol. Mus. Goeldi, 8, p. 99, 1914—Rio Madeira.

Psophia viridis viridis Naumburg, Bull. Amer. Mus. N. H., 60, p. 84, 1930 (range); Peters, Bds. World, 2, p. 156, 1934 (range); Conover, Proc. Biol. Soc. Wash., 47, p. 120, 1934—Rio Madeira (Igarapé Auará; "Lago Sampaio, Rosarinho") and Rio Tapajóz (Boim).

Range.—Northern Brazil, south of the Amazon, from the right bank¹ of the Rio Madeira east to the left bank of the Rio Tapajóz (Boim), south to the Rio Mamoré, Matto Grosso.²

Conover Collection.—5: Brazil (Boim, Rio Tapajóz, 5).

****Psophia viridis dextralis* Conover.³ INTERMEDIATE TRUMPETER.**

Psophia viridis dextralis Conover, Proc. Biol. Soc. Wash., 47, p. 119, 1934—Tauary, right bank of Rio Tapajóz, Brazil (type in Conover Collection, Field Museum of Natural History).

Range.—Northern Brazil south of the Amazon, from the right bank of the Rio Tapajóz (Tauary, Caxiricatuba) east probably to the Rio Xingú.

Conover Collection.—5: Brazil, Rio Tapajóz (Tauary, 3; Caxiricatuba, 2).

****Psophia viridis interjecta* Griscom and Greenway.⁴ CAMETA TRUMPETER.**

¹ We cannot help casting doubt on the correctness of the locality "Lago Sampaio, Rosarinho" (left bank of the Rio Madeira!) attached to a specimen in the American Museum of Natural History. From the left bank of that river we have otherwise seen only *P. l. leucoptera*, while all other specimens of the Green-winged Trumpeter examined by the authors are from places on the right bank.

² *Additional material examined*.—Brazil: Parintins, 1 (the type); Salto Theotônio, Rio Madeira, 1; Igarapé Auará, near Borba, 6; "Lago Sampaio, Rosarinho," 1; Maroins, Rio Machados, 6; Cachoeira da Guajará-guaçu, 1.

³ *Psophia viridis dextralis* Conover: Similar to, and agreeing with, *P. v. obscura* in dark-colored bill and feet, but shape and proportions of the bill as in *P. v. viridis* (longer, with upper mandible less elevated and culmen less arched than in *obscura*); upper back rather darker brown (clove brown) without any violaceous shade; tertials and elongated scapulars paler, about Saccardo's olive, and vermiculated with dusky (dark brown edged with bluish green and with mere traces of obsolete "watermark" like markings in *obscura*); apical spots to greater upper wing coverts golden green instead of blue. Wing (male), 275–286; tail, 120–140; bill, 35–37.

Six adults from the right bank of the Tapajóz are very constant in their characters.

⁴ *Psophia viridis interjecta* Griscom and Greenway: Very close to *P. v. dextralis*, but tertials and elongated scapulars lacking the dusky vermiculations, and apical spots to greater upper wing coverts blue instead of golden green.

This recently described form is known only from the type and an adult bird in the Conover Collection from the Rio Cumarapy (Camaraipi), which enters the

Psophia viridis interjecta Griscom and Greenway, Bull. Mus. Comp. Zool., 81, p. 419, 1937—Cametá, left bank of the Rio Tocantins, Pará, Brazil (type in Museum of Comparative Zoology, Cambridge, Mass.).

Range.—Northern Brazil south of the Amazon, from the left bank of the Tocantins (Cametá) west probably to the Rio Xingú.

Conover Collection.—1: Brazil (Rio Cumarapy, Pará, 1).

****Psophia viridis obscura* Pelzeln.¹ DUSKY TRUMPETER.**

Psophia obscura Pelzeln, Sitzungsber. Akad. Wiss. Wien, Math.-naturw. Kl., 24, p. 373, 1857—Pará, Brazil (type in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—near Pará; Pelzeln, Orn. Bras., pp. 299, 455, 1870—Pará; Blasius, Journ. Orn., 32, pp. 205, 207, 1884 (diag., range); Finsch, Not. Leyd. Mus., 20, p. 81, 1898—Pará (crit.); Sclater, Ibis, 1898, p. 520, pl. 11—waterfall of Acary Ussána, Rio Capim, Pará (crit.); Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará; Ihering, Cat. Faun. Braz., 1, p. 59, 1907 (range); Hellmayr, Nov. Zool., 17, p. 423 (in text), 1910—Pará (crit.); idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 83, 97, 1912—Pará, Rio Acará, and Rio Capim (crit.).

Psophia viridis (not of Spix) Wallace, Travels Amaz. Rio Negro, p. 473, 1853—part, Pará; Sharpe, Cat. Bds. Brit. Mus., 23, p. 281, 1894—part, descr. and hab. Pará.

Psophia obscura [sic] Sneath, Bol. Mus. Goeldi, 8, p. 98, 1914—Rio Acará.

Psophia viridis obscura Peters, Bds. World, 2, p. 156, 1934—Pará region.

Range.—Northern Brazil, south of the Amazon in the Pará region, west probably to the Rio Tocantins.

Conover Collection.—1: Brazil (Utinga, Pará, 1).

Family RALLIDAE. Rails, Gallinules, Coots

Genus RALLUS Linnaeus

Rallus Linnaeus, Syst. Nat., 10th ed., 1, p. 153, 1758—type, by subs. desig. (Fleming, Mem. Wern. Nat. Hist. Soc., 3, p. 176, 1821), *Rallus aquaticus* Linnaeus.

Ortygonax Heine, in Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 321, 1890—type, by subs. desig. (Sharpe, Cat. Bds. Brit. Mus., 23, p. 27, 1894), *Rallus rhyrhynchos* "Vieillot."

Amazon halfway between the rivers Xingú and Tocantins. A series is, of course, required to prove that these individuals are anything more than intergrades to *P. v. obscura*.

¹ *Psophia viridis obscura* Pelzeln: Differs from *P. v. viridis* by shorter, dusky brown bill with more elevated, strongly arched upper mandible; dusky instead of light greenish legs; brown upper back, inner secondaries, and elongated scapulars with hardly any green; apical edges to wing coverts much narrower and duller; the foreneck faintly glossed with dull purple instead of brilliant violet-blue, etc. Wing, 265–285; tail, 115–128; bill, 32–33.

Additional material examined.—Brazil, Pará: Pará, 3 (including the type); Rio Acará, 2.

****Rallus sanguinolentus tschudii* (Chubb).¹ TSCHUDI'S RAIL.**

Pardirallus rityrhynchus tschudii Chubb, Ibis, (11), 1, p. 50, Jan., 1919—Junín, Peru (type in British Museum examined).

Rallus rytirhynchus (not *Rallus rytirhynchus* Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 559—part, Junín; Salvin, Nov. Zool., 2, p. 22, 1895—Malca (Cajabamba) and Succha (Huamachuco), Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 48—Ingapirca, Peru.

Rallus cuesius (not *Gallinula caesia* Spix) Tschudi, Unters. Faun. Peru., Orn., p. 300, 1846—part, wooded region of Peru; Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 213—Cutervo; idem, Orn. Pér., 3, p. 316, 1886—part, Cutervo.

Limnopardalus rytirhynchus Sharpe, Cat. Bds. Brit. Mus., 23, p. 29, 1893—part, spec. 1, Junín.

Pardirallus rytirhynchus rytirhynchus Bangs and Noble, Auk, 35, p. 446, 1918—Huancabamba, Dept. Piura, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 48, 1921—La Raya and Calca, Urubamba, Peru (crit.).

Pardirallus sanguinolentus tschudii Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 251, 1930—Huánuco, Peru (crit.).

Ortygonax rytirhynchus tschudii Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925 (crit.).

Ortygonax rytirhynchus tschudii Peters, Bds. World, 2, p. 168, 1934—Peru.

Range.—Temperate zone of Peru, from the upper Marañón south to the Lake Titicaca region.²

Field Museum Collection.—5: Peru (Cajamarca, 3; Huánuco, 2).

Conover Collection.—8: Peru (Huánuco, 5; Calca, Cuzco, 1; Chucuito, Puno, 2).

****Rallus sanguinolentus simonsi* (Chubb).³ SIMONS'S RAIL.**

Pardirallus rityrhynchus simonsi Chubb, Bull. Brit. Orn. Cl., 38, p. 33, 1917—Eten, Lambayeque, Peru (type in British Museum).

¹ *Rallus sanguinolentus tschudii* (Chubb): Very similar to *R. s. sanguinolentus*, but somewhat larger, and the upper parts more reddish brown. With one exception, all specimens examined of this form have the feathers of the mantle and rump, as well as the scapulars, coarsely centered with black. Wing, 130 (female) to 146 (male); bill, 48 (female) to 58 (male).

Additional material examined.—Peru: Succha (Huamachuco), 1; Junín, 1 (the type); Ingapirca, 1.

Recent study of the material in the British Museum strongly suggests the identity of *tschudii* and *simonsi*. There is evidently no constant difference in coloring, and the supposedly larger size of the highland birds does not hold in a good many individuals.

² It probably ranges into Bolivia. Oustalet (Miss. Scient. Cap Horn, 6, p. B.131, 1891) mentions a specimen collected by d'Orbigny at Sicasica which is more likely to be *R. s. tschudii* than any other race.

³ *Rallus sanguinolentus simonsi* (Chubb): Somewhat intermediate between *R. s. tschudii* and *R. s. landbecki*, but decidedly smaller than either. Differs from the latter by olivaceous rather than rufescent brown, posteriorly more or less spotted upper parts; from the former, which it resembles in the black-marked

Rallus caesi (not *Gallinula caesia* Spix) Tschudi, Unters. Faun. Peru., Orn., p. 300, 1846—part, coast of Peru; Taczanowski, Orn. Pér., 3, p. 316, 1886—part, Lima.

Rallus rythirhynchus (not *Rallus rythirhynchus* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 446—part, western Peru [=Arequipa]; iidem, l.c., 1868, p. 990—Arequipa, Peru; Taczanowski, l.c., 1874, p. 559—part, Lima; Berlepsch and Stolzmann, l.c., 1892, p. 394—Lima.

Rallus rytorhynchus Sclater, Proc. Zool. Soc. Lond., 1891, p. 136—Pica, Tarapacá, Chile.

[*Limnopardalus rythirhynchus*] subsp. *a. Limnopardalus sanguinolentus* (not *Rallus sanguinolentus* Swainson) Sharpe, Cat. Bds. Brit. Mus., 23, p. 30, 1894—part, Tarapacá and Arequipa.

Rallus sanguinolentus Lane, Ibis, 1897, p. 299—part, Pica, Tarapacá.

Rallus sanguinolentus landbecki Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, pp. 351, 356, 1932—part, Pica, Tarapacá.

Pardirallus sanguinolentus simonsi Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 2, 1933—Arequipa (Tambo Valley), Ica (Nazca, Muchica), Lima (Huacho), and Ancash (Yuramarca), western Peru (crit.).

Ortygonax rythirhynchus simonsi Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925.

Ortygonax rythirhynchus simonsi Peters, Bds. World, 2, p. 168, 1934—Peru.

(?) *Rallus nigricans* (not of Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 244—Pacasmayo, Peru (two young).

Range.—Arid Pacific slope of Peru, from Lambayeque (Eten) southwards, and extreme northern Chile (Pica, Tarapacá).

Field Museum Collection.—1: Peru (Yura, Arequipa, 1).

Conover Collection.—1: Peru (Yura, Arequipa, 1).

**Rallus sanguinolentus landbecki* Hellmayr.¹ LANDBECK'S RAIL.

Rallus sanguinolentus landbecki Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 351, 1932—Concepción, Chile (type in Field Museum of Natural

mantle, scapulars, and inner secondaries, by much paler, less rufescent dorsal surface. Wing, 130–135; bill, 43 (female) to 53 (male).

Mr. Carriker has shown that *simonsi* extends south to Arequipa, and renewed comparison of the single bird from Tarapacá (Pica) with two from the latter locality, leads to the conclusion that, in spite of its nearly plain (unmarked) upper parts, it seems more properly referable to *R. s. simonsi*. It is considerably smaller than any specimen from the more southern parts of Chile, but agrees closely in dimensions with one of the Arequipa birds.

¹ *Rallus sanguinolentus landbecki* Hellmayr: Very similar to *R. s. luridus*, but with slenderer, though not constantly shorter bill and weaker feet; upper parts decidedly paler, less rufous brown. The red spot at the base of the bill is rather obsolete, or even absent as in *R. s. luridus*.

Additional material examined.—Chile: Vicuña, Coquimbo, 1; Santiago, 5; Rancagua, O'Higgins, 1; Teno, Curicó, 1; Vegas de Talgahuano, Concepción, 1; Peuco, Concepción, 1; Cabrero, Concepción, 1; Junquillos (San Carlos de Chillan), Nuble, 1; Maquegua, Arauco, 2; Malleco, 1; Maquehue, Cautín, 4; Pelal, Temuco, 2; Chapod, Temuco, 1; Río Bueno, Valdivia, 1; Valdivia, 3; Desagüe, near Puerto Montt, Llanquihue, 1; unspecified, 5.—Argentina: Puesto Burro, Chubut, 1.

- History); idem, l.c., p. 356, 1932—part, Atacama to Llanquihue and adjacent districts of Argentina; Bullock, Rev. Chil. Hist. Nat., 39, p. 244, 1935—Isla la Mocha, Chile (breeding).
- Rallus sanguinolentus* Swainson, Anim. Menag., p. 335, Dec. 31, 1837—part, Chile; Darwin, Zool. Beagle, 3, Birds, p. 133, 1841—Valparaíso; Fraser, Proc. Zool. Soc. Lond., 11, p. 118, 1843—Chile; Yarrell, l.c., 15, p. 54, 1847—Chile (egg descr.); Sclater, l.c., 1867, pp. 333, 339—Chile; Lane, Ibis, 1897, p. 299—part, central and southern Chile and Chiloé Island.
- Rallus bicolor* (not of Lesson, 1831) Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 434, pl. 10, 1847—Chile; Boeck, Naumannia, 1855, p. 510—Valdivia; Germain, Proc. Bost. Soc. N. H., 7, p. 314, 1860—Santiago (breeding habits); Frauenfeld, Verh. Zool. Bot. Ges. Wien, 10, Abh., p. 639, 1860—Lake Aculeo, Santiago; Philippi, Anal. Univ. Chile, 31, p. 278, 1868—"the whole" of Chile; Lataste, Act. Soc. Scient. Chili, 3, "1893," p. cxv, 1894—Bureo (Chillan), Nuble; Waugh and Lataste, l.c., 4, pp. lxxxix, clxxiii, 1894—Peñaflor, Santiago, and San Alfonso, Valparaíso; Lataste, l.c., 5, pp. xxxiv, lxiii, 1895—Caillihue (Vichuquen), Curicó, and Junquillos, Nuble.
- Rallus cuesius* (not *Gallinula caesia* Spix) Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 195, 1855—interior of Chile; Schlegel, Mus. Pays-Bas, Ralli, p. 8, 1865—Santiago.
- Aramides bicolor* Pelzeln, Reise Novara, Zool., 1, Vögel, p. 133, 1865—Chile (spec. examined;=young).
- Aramides sanguinolentus* Pelzeln, Reise Novara, Zool., 1, Vögel, p. 134, 1865—Chile (spec. examined;=adult).
- Rallus rythrhynchus* (not of Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 446—part, Chile; Housse, Rev. Chil. Hist. Nat., 28, p. 52, 1924—Isla La Mocha; idem, l.c., 29, p. 150, 1925—San Bernardo, Santiago; Jaffuel and Pirion, l.c., 31, p. 113, 1927—Marga-Marga, Valparaíso; Bullock, l.c., 33, p. 203, 1929—Angol, Malleco (breeding).
- Rallus rythrhynchus* [sic] Reed, Anal. Univ. Chile, 49, p. 565, 1877—Cauquenes, Colchagua; Gigoux, Rev. Chil. Hist. Nat., 28, p. 83, 1924—Caldera, Atacama.
- Rallus erythrhynchus* [sic] Reed, Anal. Univ. Chile, 93, p. 209, 1896—Chile.
- [*Limnopardalus rythrhynchus*] subsp. *a. Limnopardalus sanguinolentus* Sharpe, Cat. Bds. Brit. Mus., 23, p. 30, 1894—part, central Chile, Santiago, and Valparaíso.
- Limnopardalus rythrhynchus sanguinolentus* Schallow, Zool. Jahrb. (Syst.), Suppl., 4, p. 669, 1898—Punta Teatina, Coquimbo; Paessler, Journ. Orn., 70, p. 438, 1922—Coronel, Chile (breeding habits).
- Pardirallus rityrhynchus sanguinolentus* Chubb, Ibis, 1919, p. 51—Maquehue and Pelal, Temuco, Chile (crit.); Bullock, El Hornero, 3, p. 91, 1923—Chile (nest).
- Pardirallus rythrhynchus* subsp. *sanguinolentus* Barros, Rev. Chil. Hist. Nat., 23, p. 16, 1919—Nilahue, Curicó.
- Pardirallus rythrhynchus sanguinolentus* Barros, Rev. Chil. Hist. Nat., 25, p. 171, 1921—Cordillera of Aconcagua.

Pardirallus rytirhynchos sanguinolentus Wetmore, Univ. Calif. Pub. Zool., 24, p. 424, 1926—Caracoles, Santa Cruz.

Ortygonax sanguinolentus sanguinolentus Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925.

Ortygonax rytirhynchos landbecki Peters, Bds. World, 2, p. 169, 1934 (range).

Range.—Chile, from Atacama south to Llanquihue (Rio Aisen), and the adjacent districts of southwestern Argentina (western Chubut and western Santa Cruz).

Field Museum Collection.—6: Chile (Concepción, 1; Rio Lolen, Cautín, 2; Mafil, Valdivia, 1; Quellon, Chiloé Island, 1; Rio Inio, Chiloé Island, 1).

Conover Collection.—14: Chile (Ramadilla, Copiapó Valley, Atacama, 1; La Sehesa, Santiago, 1; Quidico, Concepción, 1; Angol, Bio Bio, 2; Galvarino, Cautín, 1; Mafil, Valdivia, 2; Quellon, Chiloé Island, 1; Rio Inio, Chiloé Island, 2; Casa de Richards, Rio Nirehuau, Llanquihue, 2; Balseo, junction of Rios Simpson and Mañiuales, near Puerto Aisen, Llanquihue, 1).

***Rallus sanguinolentus luridus* Peale.¹ MAGELLANIC RAIL.**

Rallus luridus Peale, U. S. Expl. Exp., 8, p. 223, 1848—Orange Harbour, Tierra del Fuego (type in U. S. National Museum examined).

Rallus antarcticus (not of King) Sharpe, Proc. Zool. Soc. Lond., 1881, p. 14—Tom Bay and Mayne Harbor (spec. in British Museum examined).

[*Limnopardalus rytirhynchus*] subsp. *β. Limnopardalus vigilantis* Sharpe, Cat. Bds. Brit. Mus., 23, p. 31, pl. 4, 1894—Straits of Magellan (type, from Tom Bay, in British Museum, examined).

Rallus rhytirhynchus (not *Rallus rytirhynchos* Vieillot) Oustalet, Miss. Sci. Cap Horn, 6, p. B.131, pl. 2, 1891—Port Churrucha, Otarie Islet (Wollaston Island), and Maxwell Island (crit.).

(?) *Limnopardalus vigilantis* Salvadori, Ann. Mus. Civ. Stor. Nat. Genova, (2), 20, p. 626, 1900—Keppel Island, Falklands.

Limnopardalus rytirhynchus subsp. *vigilantis* Dabbene, Anal. Mus. Nac. Buenos Aires, 8, p. 372, 1902—Ushuaia, Tierra del Fuego; idem, l.c., 18, p. 195, 1910—Tierra del Fuego.

Limnopardalus vigilantis Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, Orn., p. 46, 1904—Straits of Magellan.

¹ *Rallus sanguinolentus luridus* Peale: Agreeing with *R. s. landbecki* in plain (unspotted) lower back, rump and secondaries; but larger, with heavier bill, feet and toes, and upper parts more saturated and more rufous brown. The red basal spot to the bill is obsolete or even absent (though sometimes hardly less conspicuous than in the Chilean form), but apparently always lacking on the upper mandible. Wing, 150–163 (in one case 140); bill, 61–69.

Material examined.—Magallanes: Tom Bay, Madre de Dios Island, Trinidad Channel, 1; Mayne Harbor, 1; Puerto Bueno, West Smyth's Channel, 1; Port Fleury, 1.—Tierra del Fuego: Orange Bay, 1; Isla Año Nuevo, 1.—Cape Horn: Hermit Island, 1; Bay Gretton, Wollaston Island, 3; Maxwell Island, 1.

Rallus vigilantis Nicoll, Ibis, 1904, p. 46—Puerto Bueno, Magellan Straits.

Rallus sanguinolentus luridus Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 355, 1932—Straits of Magellan to Cape Horn region (crit.); Reynolds, Ibis, 1935, p. 85—Islands of Cape Horn and Barnevelt Island (nest descr.).

Ortygonax sanguinolentus vigilantis Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925.

Ortygonax rythirhynchus luridus Peters, Bds. World, 2, p. 169, 1934 (range).

Range.—Straits of Magellan, Tierra del Fuego, and Cape Horn region; (?)accidental in the Falkland Islands (one doubtful record from Keppel Island).

****Rallus sanguinolentus sanguinolentus* Swainson.¹ ARGENTINE RAIL.**

Rallus sanguinolentus Swainson, Anim. Menag., p. 335, Dec. 31, 1837—part, "Brazil" (type now in University Museum, Cambridge, Engl.; cf. Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, pp. 352–353, 1932).

Aramides rythirhynchus (not *Rallus rythirhynchus* Vieillot) Burmeister, Journ. Orn., 8, p. 261, 1860—Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 504, 1861—Paraná.

*Rallus rhythirhynchus*² Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 145—Conchitas, Buenos Aires; idem, l.c., 1868, p. 446—part, Paraguay and Argentina; Hudson, l.c., 1876, p. 104—Buenos Aires (habits); Durnford, Ibis, 1878, p. 65—Belgrano and Lujan Bridge, Buenos Aires (eggs descr.); Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 55, 1881—Rio Colorado and Rio Negro west to Neuquen; White, Proc. Zool. Soc. Lond., 1883, p. 42—Cosquin, Córdoba; Barrows, Auk, 1, p. 276, 1884—Concepción del Uruguay, Entre Ríos (nest and eggs); Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 88, 1884—mouth of the Arroyo Tandil, Buenos Aires; Withington, Ibis, 1888, p. 471—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 2, p. 149, 1889—part, Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 406, 1890—Córdoba; Oustalet, Miss. Scient. Cap Horn, 6, p. B.131, 1891—part, banks of the Rio Uruguay; Aplin, Ibis, 1894, p. 203—Rio Sauce, Uruguay; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 34, 1897—Tala, Salta; Ihering, Cat. Faun. Braz., 1, p. 27, 1907—part, Rio Grande do Sul (Novo Hamburgo) and Argentina (La Plata); Grant, Ibis, 1911, p. 462—Cape San Antonio and Los Ynglases, Ajó, Buenos Aires; idem, l.c., 1912, p. 275 (young descr.); Gibson, l.c., 1920, p. 39—Cape San Antonio, Buenos Aires (habits).

¹ Peters (Bds. World, 2, p. 168, 1934) adopts for this species *Rallus rythirhynchus* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 549, 1819—based on "Ypacahá pardo" Azara, No. 372, Paraguay). Azara's description refers to three immature birds and is of very doubtful applicability (cf. Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 251, 1930, and Hellmayr, l.c., 19, p. 352, 1932). In view of the uncertainty surrounding Vieillot's name, which might just as well have been based on immature individuals of *R. nigricans* likewise found in Paraguay, it is preferable to use Swainson's term, whose type still exists and leaves no possible doubt as to its pertinence.

² Various spelled *rhythirhynchus*, *rythirhynchus*, *rytyrhynchus*, or *rythirhynchus*.

Aramides nigricans (not *Rallus nigricans* Vieillot) Burmeister, Journ. Orn., 8, p. 261, 1860—Mendoza, Paraná, Tucumán; idem, Reise La Plata St., 2, p. 504, 1861—"Argentina."

Rallus nigricans Durnford, Ibis, 1877, p. 193—Belgrano, Buenos Aires (eggs descr.; spec. in British Museum examined); Sclater and Hudson, Arg. Orn., 2, p. 150, 1889—"Buenos Aires" (ex Burmeister).

Limnopardalus rytirhynchus Sharpe, Cat. Bds. Brit. Mus., 23, p. 29, 1894—part, spec. a-k, "Brazil," Uruguay (Montevideo), Argentina (Belgrano, Alvear, Conchitas, Lomas de Zamora, Buenos Aires; Cosquin, Córdoba; Mendoza); Ihering, Anuario Est. Rio Grande do Sul, 16, p. 147, 1899—São Lourenço, Rio Grande do Sul; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 214, 1902—Lules, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—Lules; Chubb, Ibis, 1910, p. 65—Sapucay, Paraguay (spec. examined); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 195, 1910—part, Córdoba, Tucumán, Salta, Buenos Aires.

Limnopardalus rytirhynchus rytirhynchus Hartert and Venturi, Nov. Zool., 16, p. 256, 1909—Entre Ríos (La Soledad) and Buenos Aires (Barracas al Sud).

Pardirallus rytirhynchus rytirhynchus Chubb, Ibis, 1919, p. 48—El Carrizal, Sierra de Córdoba, and Isla Ella, Delta del Paraná (young descr.).

Pardirallus rytirhynchus rytirhynchus Dabbene, El Hornero, 1, p. 33, 1917—Isla Martín García, Buenos Aires; Marelli, Mem. Min. Obr. Publ. for 1922-23, p. 600, 1924—Buenos Aires Province.

Pardirallus rytirhynchus Marelli, El Hornero, 1, p. 76, 1918—Curuzú-Cuatí, Corrientes; Sanzin, l.c., 1, p. 148, 1918—La Paz, Mendoza; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Montevideo, Canelones, Maldonado, Colonia, Rocha, Treinta y Tres); Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 81, 1923—La Rioja; Pereyra, l.c., 3, p. 161, 1923—Zelaya, Buenos Aires; Wilson, l.c., 3, p. 351, 1926—General López, Santa Fé; Budin, l.c., 4, p. 403, 1931—La Quebrada, Jujuy; Pereyra, l.c., 5, p. 215, 1933—Isla Demarchi, Delta del Paraná.

Pardirallus rytirhynchus rytirhynchus Wetmore, Bull. U. S. Nat. Mus., 133, p. 122, 1926—Uruguay (Lazcano, Rio Negro), Rio Negro (General Roca), and Mendoza (Tunuyán) (crit., habits).

Ortygonax rytirhynchus(os) rytirhynchus(os) Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925; Peters, Bds. World, 2, p. 168, 1934 (range).

Rallus sanguinolentus sanguinolentus Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 354, 1932 (crit.).

Range.—Extreme southeastern Brazil (Rio Grande do Sul), Uruguay, Paraguay, and northern Argentina south to the Rio Negro.¹

¹ Swainson's type of *R. sanguinolentus* is a thoroughly typical example of this form, which is readily recognizable by the blackish central markings to the dorsal feathers and inner secondaries and the prominent red spot at the base of the bill. An adult male from Rio Grande do Sul does not differ from an Argentine series.

Additional material examined.—Brazil: unspecified, 1 (the type); Rio Grande, Rio Grande do Sul, 1.—Uruguay: Montevideo, 1; Santa Elena, Soriano, 1.—Argentina: La Soledad, Entre Ríos, 1; Isla Ella, Delta del Paraná, 1; Barracas al

Field Museum Collection.—1: Argentina (Rio Colorado, Tucumán, 1).

Conover Collection.—7: Argentina (San Felipe, Tucumán, 1; Burruyain, Tucumán, 1; Tunuyán, Mendoza, 2); Paraguay (Itapé, 1; Horqueta, 2).

***Rallus sanguinolentus zelevori* (Pelzeln).¹ ZELEVOR'S RAIL.**

Aramides zelevori Pelzeln, Reise Novara, Zool., 1, Vögel, p. 133, 1865—Lake Paratinga and Sapitiba, Rio de Janeiro, Brazil (type, from Lake Paratinga, in Vienna Museum examined); idem, Orn. Bras., pp. 315, 458, 1870—Sapitiba, Rio de Janeiro.

Rallus rythirhynchus (not *Rallus rytirhynchus* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 446—part, "southern Brazil (Zelevor)"; (?) Ihering, Cat. Faun. Braz., 1, p. 27, 1907—part, Ypiranga, São Paulo.

(?) *Limnopardalus rytirhynchus* Ihering, Rev. Mus. Paul., 3, p. 414, 1899—Ypiranga, São Paulo.

Rallus sanguinolentus zelevori Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 355, 1932—State of Rio de Janeiro (crit.).

Ortygonax rytirhynchus zelevori Peters, Bds. World, 2, p. 168, 1934 (range).

Range.—Southeastern Brazil, in State of Rio de Janeiro (Lake Paratinga; Sapitiba) and probably also in the neighboring provinces (São Paulo, etc.).²

****Rallus nigricans* Vieillot.³ BLACKISH RAIL.**

Rallus nigricans Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 560, 1819—based on "Ypacahá obscuro" Azara, No. 371, Paraguay and La Plata

Sud, Buenos Aires, 4; Belgrano, 1; Alvear, 1; Lomas de Zamora, 1; Ajó, Buenos Aires, 5; Conchitas, 1; Del Carril, Dept. Saladillo, Buenos Aires, 1; Cosquin, Córdoba, 1.—Paraguay: Sapucay, 1.

¹ *Rallus sanguinolentus zelevori* (Pelzeln): Nearest to, and agreeing with, *R. s. sanguinolentus* in heavily black-marked dorsal feathers, scapulars, and inner secondaries, but much smaller, with much slenderer, paler (yellowish green) bill; upper parts darker, more rufescent, and under surface (from chin to abdomen) deeper slaty. The two only known specimens have a very conspicuous bright red basal spot to the bill encroaching on the lower half of the maxilla, and are, of course, very different from *R. nigricans*, which is likewise found at Rio de Janeiro. Wing, 110, 114; tarsus, 55; bill, 41, 45.

² *Rallus setosus* King (Zool. Journ., 4, p. 94, 1828) cannot be identified for certain in absence of the type. Cf. Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 352, 1932.

³ *Rallus nigricans* Vieillot, in spite of its superficial resemblance, evidently is specifically distinct from *R. sanguinolentus*, since its range in Paraguay and parts of southeastern Brazil coincides with representatives of the latter group. For instance, we have examined specimens of both from Paraguay (Sapucay, Horqueta) and Rio de Janeiro (Sapitiba). Its principal character is the straighter, greenish, apically more yellowish bill without any trace of the red basal spot. The upper parts are generally lighter, more olivaceous, and are wholly devoid of dusky spotting. The coloration of the throat varies individually from white to

River; Wied, Beitr. Naturg. Bras., 4, (2), p. 782, 1833—Rio de Janeiro (plumages); Schlegel, Mus. Pays-Bas, Ralli, p. 8, 1865—Ypanemá, São Paulo, and Rio do Boraxudo, Paraná; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 446—Brazil (Minas Geraes, São Paulo, Bahia) and Paraguay (monog.); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 45—Rio de Janeiro (Nova Friburgo), São Paulo (Pertiniga), and Minas Geraes (Fazenda Engenho, Fazenda Soumidoro, Lagõa Santa); Pelzeln, Orn. Bras., 3, p. 315, 1870—Rio de Janeiro (Ilha de Marambaya, Sapi-tiba), São Paulo (Mattodentro, Ypanemá), and Paraná (Rio do Boraxudo); Berlepsch, Journ. Orn., 22, p. 274, 1874—Blumenau, Santa Catharina; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 545—Medellin, Colombia (nesting); Forbes, Ibis, 1881, p. 358—Quipapá, Pernambuco; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 49—Huambo, Peru; idem, Orn. Pér., 3, p. 317, 1886—Huambo; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 40, 1900—Gualaquiza, Ecuador.

Rallus immaculatus Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 79, 1823—based on Azara, No. 371; Bahia and São Paulo.

Gallinula caesia Spix, Av. Spec. Nov. Bras., 2, p. 73, pl. 95, 1825—Contendas, Minas Geraes, Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 712, 1906).

Rallus bicolor (Cuvier MS.) Lesson, Traité d'Orn., livr. 7, p. 536, April, 1831—new name for *Gallinula caesia* Spix; Blackwall, Edinb. Journ. Sci., (n.s.), 6, No. 11, p. 78, 1832—supposed to be Brazil (type in coll. of Robert Wood, Manchester).

Aramides nigricans Burmeister, Syst. Uebers. Th. Bras., 3, p. 385, 1856—southeastern Brazil; Euler, Journ. Orn., 15, p. 418, 1867—Cantagallo, Rio de Janeiro (eggs descr.).

Limnopardalus nigricans Sharpe, Not. Leyd. Mus., 15, p. 267, 1893—"Surinam"; idem, Cat. Bds. Brit. Mus., 23, p. 31, 1894—Brazil ("Pelotas, Rio Grande do Sul"; Santa Fé, Minas Geraes; Bahia, (?) Peru (Pacasmayo), and Colombia (Medellin); Ihering, Annuario Est. Rio Grande do Sul, 16, p. 147, 1899 (not found in Rio Grande do Sul); idem, Rev. Mus. Paul., 3, p. 414, 1899—São Paulo (Ribeirão Pires, Cachoeira, São Paulo, Ypiranga); idem, l.c., 4, p. 164, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; idem, Cat. Faun. Braz., 1, p. 27, 1907—Rio de Janeiro (Ilha

slate gray. This variation is well shown by the series from Villa Rica, Paraguay, and another from São Paulo. On comparing the type of *R. n. humilis*, we fail to discern a single color character that is not found in various individuals from Brazil. Its supposedly smaller size does not hold either, several birds from eastern Brazil having the wings equally short, and one from Pernambuco (São Lourenço) the bill even shorter (40 mm.). Specimens from Colombia, which vary in the color of the throat to the same extent as those from Paraguay and Brazil, seem to average slightly paler gray underneath, but the divergency is insignificant and needs corroboration by larger series.

Additional material examined.—Colombia: Medellin, 3; Popayán, 1; "Bogotá," 1.—Peru: La Merced, Chanchamayo, 1.—Brazil: São Lourenço, Pernambuco, 2; Bahia, 6; Braço do Sul, Espírito Santo, 1; Engenheiro Reeve, Espírito Santo, 1; Agua Suja (Bagagem), Minas Geraes, 1; Santa Fé, Minas Geraes, 1; Rio de Janeiro, 4; Sapitiba, Rio de Janeiro, 1; Cruzeiro, São Paulo, 1; Ypanemá, São Paulo, 4; Borda do Matto, São Paulo, 1; Piquete, São Paulo, 1; São Sebastião, São Paulo, 1; Fazenda Cayóá, São Paulo, 1; Joinville, Santa Catharina, 3.—Argentina: Posadas, Misiones, 1.—Paraguay: Sapucay, 2.

Grande), São Paulo (Cachoeira, Ribeirão Pires, Jaboticabal, Ubatuba, Itararé), and Paraná (Ourinho); Hartert and Venturi, Nov. Zool., 16, p. 257, 1909—Posadas, Misiones; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 195, 1910—"Catamarca" (errore), "Chaco," and Misiones; Chubb, Ibis, 1910, p. 65—Sapucay, Paraguay; Bertoni, Faun. Parag., p. 37, 1914—Paraguay.

Rallus maculatus (not of Boddaert) Goodfellow, Ibis, 1902, p. 230—near the Cauca River, Popayán, Colombia (spec. examined).

Rallus nigricans humilis Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 48—La Merced, Chanchamayo, Peru (type in Warsaw Museum examined; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 102, 1927).

Pardirallus nigricans nigricans Chapman, Bull. Amer. Mus. N. H., 36, p. 216, 1917—La Manuelita and Rio Frio, Cauca Valley, Colombia; idem, l.c., 55, p. 175, 1926—Mirador, Ecuador; Pinto, Rev. Mus. Paul., 19, p. 71, 1935—Bahia (Aratuhye, Engenho da Ponte, Rio Gongogy).

Pardirallus nigricans macropus Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 117, 1926—Vermelho, Paraná, Brazil (type in Warsaw Museum).

Rallus nigricans nigricans Pinto, Rev. Mus. Paul., 20, p. 40, 1936—Inhúmas, Goyáz, Brazil.

Ortygonax nigricans nigricans Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925; Peters, Bds. World, 2, p. 169, 1934 (range).

Ortygonax nigricans humilis Lowe, Bull. Brit. Orn. Cl., 46, p. 37, 1925; Peters, Bds. World, 2, p. 169, 1934 (range).

Range.—Eastern Brazil, from Pernambuco and Bahia south through Minas Geraes, Goyáz (Inhúmas), Espírito Santo, Rio de Janeiro, São Paulo, and Paraná to Rio Grande do Sul; Paraguay (Sapucay, Villa Rica, Horqueta); northeastern Argentina (Posadas, Misiones);¹ also in Colombia (Cauca Valley; native "Bogotá" collections), eastern Ecuador (Gualaquiza, Mirador), and eastern Peru (Huambo; La Merced, Chanchamayo).²

Field Museum Collection.—3: Brazil (Therezopolis, 2); Paraguay (Villa Rica, 1).

Conover Collection.—26: Colombia (Timba Valle, Cauca, 1; El Tambo, Cauca, 4; Munchique, Cauca, 1); Brazil (Fazenda Cayoá,

¹ The adult male secured by S. Venturi on Sept. 13, 1899, at Posadas, Misiones, seems to be the only authenticated Argentine record. Dabbene includes in its range Catamarca (ex Fontana, a notoriously unreliable writer) and Chaco, on the authority of Venturi, who, however, did not obtain any specimens. The bird listed by Durnford s. n. *Rallus nigricans* from Belgrano, Buenos Aires, is *R. s. sanguinolentus*, as shown by his specimen in the British Museum, and Burmeister's record is doubtless due to confusion with the same species.

² We cannot help thinking that the young birds from Pacasmayo doubtfully referred to *R. nigricans* by Taczanowski, were wrongly identified. They are much more likely to be *R. s. simonsi*. The locality "Surinam" attached to a specimen in the Leiden Museum appears to be likewise open to doubt.

São Paulo, 1; Joinville, Santa Catharina, 1; Rolante, Rio Grande do Sul, 1; Paraguay (Villa Rica, 10; Horqueta, 7).

Rallus longirostris pelodramus Oberholser.¹ TRINIDAD CLAPPER RAIL.

Rallus longirostris pelodramus Oberholser, Proc. U. S. Nat. Mus., **84**, p. 323, 1937—Caroni Swamp, Island of Trinidad (type in coll. of J. H. Fleming, Toronto, Ontario).

Rallus longirostris (not of Boddaert) Léotaud, Ois. Trinidad, p. 491, 1866—Trinidad; Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 444—part, Trinidad.

Rallus longirostris longirostris Hellmayr, Nov. Zool., **13**, p. 52, 1906—Caroni Swamp, Trinidad (crit., range); Peters, Bds. World, **2**, p. 159, 1934—part, Trinidad; Roberts, Trop. Agric., **11**, p. 90, 1934—Trinidad; Belcher and Smooker, Ibis, 1935, p. 281—Caroni Swamp, Trinidad (nest and eggs descr.).

Range.—Island of Trinidad.

***Rallus longirostris longirostris** Boddaert. LONG-BILLED RAIL.

Rallus longirostris Boddaert, Tabl. Pl. Enl., p. 52, Dec., 1789—based on “Râle à long bec, de Cayenne” Daubenton, Pl. Enl., pl. 849, Cayenne; Richard and Bernard, Act. Soc. Hist. Nat. Paris, **1**, (1), p. 118, 1792—Cayenne; Bonaparte, Bull. Soc. Linn. Normandie, **2**, p. 40, 1857—Cayenne; Schlegel, Mus. Pays-Bas, Ralli, p. 11, 1865—part, spec. b, c, Surinam and Cayenne; Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 444—part, Guiana and Cayenne; Salvin, Ibis, 1886, p. 176—British Guiana (ex Schomburgk); Sharpe, Cat. Bds. Brit. Mus., **23**, p. 10, 1894—part, spec. a, Berbice, Guiana; Berlepsch, Nov. Zool., **15**, p. 299, 1908—Cayenne; Penard, Vog. Guyana, **1**, p. 197, 1908—Surinam (eggs descr.); Chubb, Bds. Brit. Guiana, **1**, p. 66, 1916—Lamaha.

Rallus longirostris longirostris Peters, Bds. World, **2**, p. 159, 1934—part, Guianas; Oberholser, Proc. U. S. Nat. Mus., **84**, p. 320, 1937 (monog., in part).

[*Rallus longirostris*] *a. longirostris* Baird, Brewer, and Ridgway, Water Bds. N. Amer., **1**, p. 358, 1884—part, Cayenne.

Limnopardalis longirostris Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 320, 1890—Guiana.

Range.—French, Dutch, and British Guiana.²

¹ *Rallus longirostris pelodramus* Oberholser: Merely differs from the nominate race by being more heavily marked above with blackish, thus approaching *crassirostris*, from which it may, however, be separated by the darker, more rufescent tone of the lateral margins to the dorsal plumage.

Material examined.—Trinidad: Caroni Swamp, 3; Caroni, 3.

² Wetmore (Proc. Biol. Soc. Wash., **54**, p. 203, Dec. 8, 1941) has very recently described *R. l. phelpsi* from the Laguna de Tucacas at Puerto Lopez, La Guajira, Colombia (type in the U. S. National Museum). Said to be similar to *R. l. pallidus* but darker above and brighter brown below.

Field Museum Collection.—1: British Guiana (Buxton, E. C., Demerara, 1).

****Rallus longirostris crassirostris* Lawrence.¹ LARGE-BILLED RAIL.**

Rallus crassirostris Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, pp. 19, 20, 1871—Bahia, Brazil (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Ihering, Rev. Mus. Paul., 5, "1901," p. 285, 1902—Iguapé, São Paulo.

Rallus longirostris (not of Boddaert) Burmeister, Syst. Uebers. Th. Bras., 3, p. 381, 1856—Bahia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 444—part, Bahia (ex Burmeister); Pelzeln, Orn. Bras., 4, p. 458, 1870—Bahia; Forbes, Ibis, 1881, p. 358—Recife, Pernambuco.

[*Rallus longirostris*] a. *Rallus longirostris* Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 360, 1884—part, Bahia.

Rallus longirostris subsp. a. *Rallus crassirostris* Sharpe, Cat. Bds. Brit. Mus., 23, p. 11, 1894—Bahia.

Rallus longirostris crassirostris Hellmayr, Nov. Zool., 13, p. 52, 1906—Pernambuco to São Paulo (crit.); Ihering, Cat. Faun. Braz., 1, p. 26, 1907—Iguapé, São Paulo; Snethlage, Bol. Mus. Goeldi, 8, p. 70, 1914—Marajó, Brazil; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 480, 1929—Mangunça Island, Maranhão; Peters, Bds. World, 2, p. 159, 1934—Maranhão to São Paulo; Pinto, Rev. Mus. Paul., 19, p. 70, 1935—Bahia (Rio Aratuhype, Cahype, Caravellas), Rio de Janeiro (Ilha Grande, Atafoua), and São Paulo (Franca, Ituverava, Itararé, Jaboticabal); Oberholser, Proc. U. S. Nat. Mus., 84, p. 321, 1937—Bahia (crit.).

Range.—Eastern Brazil, from the estuary of the Amazon (island of Marajó) through Maranhão (Mangunça Island), Pernambuco (Recife), and Bahia to Espirito Santo, Rio de Janeiro, São Paulo, and Santa Catharina (Joinville).

Field Museum Collection.—1: Brazil (Mangunça Island, Maranhão, 1).

Conover Collection.—1: Brazil (Mangunça Island, Maranhão, 1).

¹ *Rallus longirostris crassirostris* Lawrence: Closely similar to the nominate race, but perhaps separable by more sooty (less brownish) sides of the head and by having the upper parts more coarsely spotted with blackish, causing a considerable reduction in the olivaceous lateral margins.

Owing to the absence of adequate comparative material from French Guiana it is impossible to speak with confidence on the claims of this form to recognition. Comparison of single birds from eastern Brazil at various times with specimens of the nominate race failed to corroborate the differences in stoutness of bill or in color of legs. All that can be said is that those from Brazil are more heavily marked with black above. Pinto's measurements, together with those taken by ourselves, would, besides, seem to indicate a slightly longer bill, which, in Brazilian males, ranges from 51–59 (against 47–55 in *longirostris*).

Additional material examined.—Brazil: Bahia, 3; Espirito Santo, 1; Iguapé, São Paulo, 2; Joinville, Santa Catharina, 1.

***Rallus longirostris cypereti* Taczanowski.¹ CYPERUS RAIL.**

Rallus cypereti Taczanowski, Proc. Zool. Soc. Lond., "1877," p. 747, pub. early in 1878—Santa Lucia, delta of the Rio Tumbez, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 102, 1927); idem, Orn. Pér., 3, p. 315, 1886—Rio Tumbez.

Rallus longirostris (not of Boddaert) Sharpe, Cat. Bds. Brit. Mus., 23, p. 10, 1894—part, spec. b, Santa Lucia, Peru.

Rallus longirostris cypereti Hellmayr, Nov. Zool., 13, p. 52, 1906—Vacqueria, Ecuador, and Tumbez, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 174, 1926—western Ecuador; Peters, Bds. World, 2, p. 159, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 321, 1937 (monog.).

Range.—Marshes along the coast of Ecuador (Vacqueria, Prov. Esmeraldas) and northwestern Peru (delta of the Rio Tumbez, Dept. Tumbez).

****Rallus longirostris crepitans* Gmelin. EASTERN CLAPPER RAIL.**

Rallus crepitans Gmelin, Syst. Nat., 1, (2), p. 713, 1789—"In Noveboraco"—Hempstead, Long Island, New York;² Sharpe, Cat. Bds. Brit. Mus., 23, p. 12, 1894—part, except Georgia and Corpus Christi, Texas.

Rallus longirostris crepitans Ridgway, Bull. Nutt. Orn. Cl., 5, p. 140, 1880 (dist. char.); Lawrence, Auk, 2, p. 274, 1885 (wintering Long Island); Browne, l.c., 4, p. 344, 1887 (winter spec. Mass.); Bent, Bull. U. S. Nat. Mus., 135, p. 277, 1926 (life hist.); Peters, Bds. World, 2, p. 157, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 351, 1937 (disc.).

Rallus crepitans crepitans Cooke, Bull. U. S. Dept. Agr., 128, p. 19, 1914 (distr., migr.).

Range.—Breeds in the salt marshes from Connecticut to North Carolina. Winters from New Jersey to northeastern Florida (Amelia Island).

Field Museum Collection.—6: Connecticut (Litchfield, 1); New York (Mount Sinai Harbor, Long Island, 1); North Carolina (North-

¹ *Rallus longirostris cypereti* Taczanowski differs from the two eastern races by decidedly paler and more grayish (less olivaceous) edges to the dorsal plumage, and much paler, olive grayish brown instead of dusky brown barring on the flanks. Wing, (male) 132, (female) 121; tail, 52, (female) 48; bill, 52, (female) 50.

Recorded only from the two localities listed above, but doubtless also occurring in other suitable places on the coast of Ecuador.

Material examined.—Ecuador: Vacqueria (sea level), Prov. Esmeraldas, 2.—Peru: Santa Lucia, Tumbez, 1.

² According to Oberholser (Proc. U. S. Nat. Mus., 84, pp. 351-352, 1937), Hempstead should be considered the type locality, because Gmelin based his description on the "Clapper Rail" of Pennant (Arc. Zool., 2, p. 490, 1785 ["New York"]) and on the "Clapper Rail" of Latham (Gen. Syn. Bds., 3, (1), p. 229, No. 2, 1785 ["New York"]), who in turn cited as the basis of their descriptions some New York specimens in Mrs. Blackburn's Museum, which had been sent to the museum by a correspondent who lived at Hempstead, Long Island, N.Y.

hampton County, 1); South Carolina (Mount Pleasant, 2); Georgia (McIntosh County, 1).

Conover Collection.—1: New Jersey (Avalon, 1).

****Rallus longirostris waynei* Brewster.¹ WAYNE'S CLAPPER RAIL.**

Rallus crepitans waynei Brewster, Proc. New Eng. Zool. Cl., 1, p. 50, 1899—St. Mary's, Camden County, Georgia (type in Brewster Collection, Museum of Comparative Zoology, Cambridge, Mass.); Allen, Auk, 16, p. 339, 1899 (republication orig. descr.); Cooke, Bull. U. S. Dept. Agr., 128, p. 21, 1914 (range).

Rallus crepitans (not of Gmelin) Sharpe, Cat. Bds. Brit. Mus., 23, p. 12, 1894—part, Georgia.

Rallus longirostris waynei Bent, Bull. U. S. Nat. Mus., 135, p. 290, 1926 (life hist.); Peters, Bds. World, 2, p. 157, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 349, 1937 (disc.).

Range.—Resident on the salt marshes of Atlantic coast from southeastern North Carolina to about lat. 29° N. on the east coast of Florida.

Field Museum Collection.—5: Georgia (Sapelo Island, 1); Florida (Pilot-town, 4).

Conover Collection.—6: Georgia (Cumberland Island, 1); Florida (Nassau County, 2; New Berlin, Duval County, 3).

****Rallus longirostris scottii* Sennett.² SCOTT'S CLAPPER RAIL.**

Rallus longirostris scottii Sennett, Auk, 5, p. 305, 1888—Tarpon Springs, Florida (cotypes in the American Museum of Natural History, New York); Bent, Bull. U. S. Nat. Mus., 135, p. 287, 1926 (life hist.); Peters, Bds. World, 2, p. 157, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 346, 1937 (disc.).

Rallus saturatus (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 23, p. 13, 1894—part, Tarpon Springs, Florida.

Rallus crepitans scotti Cooke, Bull. U. S. Dept. Agr., 128, p. 20, 1914 (range).

Range.—Salt marshes of the Gulf coast of Florida and on the east coast from Jupiter Inlet south. Wanders as far west as Perdido Bay, Alabama.

Field Museum Collection.—4: Florida (Hernando County, 1; Tarpon Springs, 2; Grove City, 1).

¹ *Rallus longirostris waynei* Brewster: Similar to *R. l. crepitans*, but grayer (more ashy, less cinnameous) on the under parts, and darker on the upper surface. From *R. l. insularum* it differs by being much darker throughout.

² *Rallus longirostris scottii* Sennett: Much darker than *waynei* on the upper surface, the centers to the feathers having a blackish appearance and the gray edgings a darker, more buffy one. On the under side it is much more cinnameous on the breast and neck, and darker on the flanks. From *saturatus* it differs by being less olive brownish (more blackish) above, and darker below.

Conover Collection.—8: Florida (Charlotte Harbor, Charlotte County, 6; Homosassa Springs, Citrus County, 2).

****Rallus longirostris insularum* Brooks.¹ KEY WEST CLAPPER RAIL.**

Rallus longirostris insularum Brooks, Proc. New Engl. Zool. Cl., 7, p. 53, June 24, 1920—Big Pine Key, Florida (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, Bds. World, 2, p. 157, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 348, 1937—Key West, Key Largo, Big Pine Key, Sixth Key in the Newfound Harbor Group, Raccoon Key, and Torch Key, Florida (disc.).

Rallus longirostris helius Oberholser, Proc. Biol. Soc. Wash., 33, p. 33, July 24, 1920—Sixth Key in the Newfound Harbor Group, southwest of Big Key, Florida (type in U. S. National Museum).

Range.—Florida keys and possibly adjacent mainland.

Field Museum Collection. 4: Florida (Key West, 1; Pigeon Key, Monroe County, 3).

****Rallus longirostris corrius* Maynard.² CORY'S CLAPPER RAIL.**

Rallus corrius Anonymous=Maynard, Amer. Exch. and Mart, 3, No. 3, Jan. 15, 1887—*island off the south shore of Andros* (type in Field Museum of Natural History examined);³ l.c., No. 6, Feb. 5, 1887 (corrected to read *Rallus coryi*).

Rallus caribaeus (not of Ridgway) Sharpe, Cat. Bds. Brit. Mus., 23, p. 13, 1894—part, Bahama Islands.

Rallus crepitans coryi Cooke, Bull. U. S. Dept. Agr., 128, p. 22, 1914 (range).

Rallus longirostris coryi Peters, Bds. World, 2, p. 158, 1934 (range).

Rallus longirostris corrius Oberholser, Proc. U. S. Nat. Mus., 84, p. 329, 1937—key south of Andros Island, South Andros Island, Southern Ragged Island, Abaco Island, Andros Island, New Providence Island, Watlings Island (disc.).

Range.—Mangrove swamps of the Bahama Islands.

¹ *Rallus longirostris insularum* Brooks: Very like *R. l. corrius*, but the feathers of the upper parts have the brown centers darker, and the gray edges of a more bluish cast. The color of the breast is less intense (whiter).

² *Rallus longirostris corrius* Maynard: A very pale bird approached in this respect only by *R. l. insularum*. Much paler throughout than *scottii*, *waynei*, and *cubanus*. Centers of feathers of upper parts pale olive brown, the edges pale gray; breast very pale buff tinged with olive gray on chest.

Additional material examined.—Bahama Islands: San Salvador or Watlings Island, 1; Lake Isabella, San Salvador, 1; Southern Wells, Andros Island, 1; southern Andros Island, 1; New Providence, 1.

³ The type specimen differs quite radically from the other ten specimens examined. It has the dark centers to the feathers of the upper parts paler (buffier, less olivaceous) and the primaries are also a much paler brown. It has a faded appearance, and may be slightly albinistic.

Field Museum Collection.—6: Bahama Islands (Berry Islands, 4; near Nassau, 1; island off the south shore of Andros, 1).

****Rallus longirostris cubanus* Chapman.¹ GREATER ANTILLEAN CLAPPER RAIL.**

Rallus longirostris cubanus Chapman, Bull. Amer. Mus. Nat. Hist., 4, p. 288, 1892—Casilda, coast of southern Cuba (type in American Museum of Natural History, New York); Oberholser, Proc. U. S. Nat. Mus., 84, p. 331, 1937—Mariel, Manzanillo, Casilda, Preston, Guantánamo, Cuba (disc.).

Rallus longirostris caribaeus (not of Ridgway) Cooke, Bull. U. S. Dept. Agr., 128, p. 22, 1914—part, Cuba, Puerto Rico, Hispaniola (distr.); Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 335, 1927—Puerto Rico, Vieques, Culebra, St. Thomas, and St. Croix (crit.); Peters, Bds. World, 2, p. 158, 1934—part, Cuba, Hispaniola, Gonave, Puerto Rico, Vieques, Culebra, and Virgin Islands.

Rallus longirostris leucophaeus Todd, Proc. Biol. Soc. Wash., 26, p. 174, 1913—Majagua River, Isle of Pines (type in Carnegie Museum); Todd, Ann. Carnegie Mus., 10, p. 201, 1916—Los Indios and Majagua River, Isle of Pines (full descr., meas.); Oberholser, Proc. U. S. Nat. Mus., 84, p. 332, 1937—Los Indios, Majagua River, Nueva Gerona, Isle of Pines (descr.).

Rallus longirostris vafer Wetmore, Proc. Biol. Soc. Wash., 41, p. 121, 1928—Etoite, Gonave Island, Haiti (type in U. S. National Museum examined); Danforth, Auk, 46, p. 362, 1929—Monte Christi, Les Salines, Gonave Island, Hispaniola; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 130, 1931—Hispaniola (crit.); Oberholser, Proc. U. S. Nat. Mus., 84, p. 328, 1937—Haiti (Caracol, Gonave Island, Petite Gonave, Fort Liberté, Petit Trou de Nippes, Grande Cayemite), Dominican Republic (Monte Christi).

Rallus longirostris limnetis Oberholser, Proc. U. S. Nat. Mus., 84, p. 326, 1937—Punta Picua, Mameyes, Puerto Rico (type in U. S. National Museum, Biological Survey Collection, examined).

¹ *Rallus longirostris cubanus* Chapman: Upper parts very like those of *R. l. waynei*, but dark centers to the feathers slightly lighter; sides of head and neck lighter gray; foreneck less grayish, and breast much more buffy.

There appears to be no constant difference between birds from Cuba, Isle of Pines, Hispaniola, and Puerto Rico. When the great individual variation and the several color phases are taken into consideration, it seems impossible to give any satisfactory characters by which to distinguish the birds from the different islands.

In this respect, it may be stated that the junior author has examined the series from the Isle of Pines, presumably used by Todd in describing *leucophaeus*, and it seems to him that the characters given in the original description are based on immaturity. Adult specimens are quite indistinguishable, not paler and whiter below than *corrius*.

Additional material examined.—Cuba: Guantánamo, 4; Trinidad, 4; Preston, 3; Matanzas, 2; Mariel, 1; Manzanillo, 2; Santiago Bay, 2.—Isle of Pines: Nueva Gerona, 13; Los Indios, 6; Majagua, 1.—Haiti: Fort Liberty, 3; Petite Gonave, 1; Pikmi, Gonave Island, 1; Etoite, Gonave Island, 2; Caracol, 1; Grande Cayemite, 1.—Santo Domingo: Monte Christi, 1.—Puerto Rico: Manati, 1; Salinas, 3; Culebra Island, 1; Mameyes, 1; unspecified, 1.

Range.—Mangrove swamps of Cuba, Hispaniola, Gonave, Puerto Rico, Vieques, and the Virgin Islands (St. Thomas, St. Croix).

Conover Collection.—10: Virgin Islands (St. Croix, 6; Tortola, 2); Puerto Rico (Boquerón, 1; Puerto Real, 1).

***Rallus longirostris caribaeus* Ridgway.¹ JAMAICAN CLAPPER RAIL.**

Rallus longirostris var. *caribaeus* Ridgway, Bull. Nutt. Orn. Cl., 5, p. 140, 1880—West Indies (type from near Spanish Town, Jamaica, in U. S. National Museum examined).

Rallus longirostris caribaeus Field, Auk, 11, p. 122, 1894 (nesting, Jamaica); Cooke, Bull. U. S. Dept. Agr., 128, p. 22, 1914—part, Jamaica; Peters, Bds. World, 2, p. 158, 1934—part, Jamaica; Oberholser, Proc. U. S. Nat. Mus., 84, p. 334, 1937—Spanish Town, Great Salt Pond, Jamaica (disc.).

Rallus caribaeus Sharpe, Cat. Bds. Brit. Mus., 23, p. 13, 1894—part, Jamaica.

Range.—Island of Jamaica.

***Rallus longirostris manglecola* Danforth.² ANTIGUA CLAPPER RAIL.**

Rallus longirostris manglecola Danforth, Proc. Biol. Soc. Wash., 47, p. 19, 1934—Five Islands, Antigua, British West Indies (type, now in U. S. National Museum, examined); Oberholser, Proc. U. S. Nat. Mus., 84, p. 324, 1937—Antigua Island, Guadeloupe Island (disc.).

Range.—Resident on the West Indian Islands of Antigua and perhaps Guadeloupe.

****Rallus longirostris saturatus* Ridgway.³ LOUISIANA CLAPPER RAIL.**

¹ *Rallus longirostris caribaeus* Ridgway: Most nearly related to *R. l. cubanus*, from which it appears to differ by being lighter and more rufescent above, while below it is lighter and more uniform, with the flanks less distinctly barred.

Of the four specimens examined, the most recent was taken in 1906, while the others were secured before 1880. It may be, therefore, that their lighter coloration, when compared to *cubanus*, is due to fading. Fresh material may show that the two should not be separated.

Material examined.—Jamaica: near Spanish Town, 2; Great Salt Pond, 1; Trelawny, 1.

² *Rallus longirostris manglecola* Danforth: Said to differ from the forms of *longirostris* inhabiting the Greater Antilles by its much longer bill and shorter tarsus. Culmen, 73.9; tarsus, 52.1. The describer had only two specimens, and more material is needed before this race can be established beyond question.

Material examined.—Antigua (Five Islands, 1); Guadeloupe (unspecified, 1 immature).

³ *Rallus longirostris saturatus* Ridgway: Compared with *R. l. scottii*, this race is lighter, more olivaceous above, and lighter, less cinnamonaceous below. According to Oberholser, there is great individual variation in this subspecies, some specimens having the breast almost as cinnamonaceous as *Rallus elegans*, and others much paler.

Rallus longirostris var. *saturatus* Ridgway, Bull. Nutt. Orn. Cl., 5, p. 140, July 6, 1880—Louisiana (type from Rigolets, Lake Borgue, in U. S. National Museum).

Rallus longirostris saturatus Bent, Bull. U. S. Nat. Mus., 135, p. 283, 1926 (life hist.); Peters, Bds. World, 2, p. 158, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 344, 1937 (disc.).

Rallus crepitans (not of Gmelin) Sharpe, Cat. Bds. Brit. Mus., 23, p. 12, 1894—part, Corpus Christi, Texas.

Rallus saturatus Sharpe, Cat. Bds. Brit. Mus., 23, p. 13, 1894—part, Lake Borgue, Louisiana.

Rallus crepitans saturatus Cooke, Bull. U. S. Dept. Agr., 128, p. 20, 1914 (range); Simmons, Auk, 31, p. 363, 1914 (life hist.); idem, Condor, 17, p. 3, 1915—Texas (nesting).

Range.—Salt marshes on the Gulf of Mexico from Alabama to Texas.

Field Museum Collection.—2: Louisiana (Tymbalin Island, 1; Raccoon Pass, 1).

****Rallus longirostris pallidus* Nelson.¹ YUCATAN CLAPPER RAIL.**

Rallus pallidus Nelson, Proc. Biol. Soc. Wash., 18, p. 141, 1905—Rio Lagartos, Yucatan, Mexico (type in Field Museum of Natural History examined).

Rallus longirostris pallidus Peters, Bds. World, 2, p. 158, 1934 (range); Oberholser, Proc. U. S. Nat. Mus., 84, p. 335, 1937 (disc.).

Range.—Coast of Yucatan and perhaps Quintana Roo, Mexico.

Field Museum Collection.—1: Yucatan (Rio Lagartos, 1).

***Rallus longirostris belizensis* Oberholser.² BELIZE CLAPPER RAIL.**

Rallus longirostris belizensis Oberholser, Proc. U. S. Nat. Mus., 84, p. 335, 1937—Ycacos Lagoon, British Honduras (type in coll. of E. A. and O. Bangs, Museum of Comparative Zoology, Cambridge, Mass.).

Rallus pallidus (not of Nelson) Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 43, 1908—Ycacos Lagoon, British Honduras; Cooke, Bull. U. S. Dept. Agr., 128, p. 22, 1914 (range).

Range.—Known only from the type locality (Ycacos Lagoon, British Honduras).

¹ *Rallus longirostris pallidus* Nelson: Similar to *R. l. cubanus*, but upper parts lighter, more rufescent, and the cinnamon of the breast brighter.

² *Rallus longirostris belizensis* Oberholser: Said to be similar to *R. l. pallidus*, but upper surface, including the crown, very much darker, the dark centers of the feathers blackish instead of olive brown, with the edgings of the feathers lighter, more purely gray. Described from one specimen.

****Rallus elegans elegans* Audubon. KING RAIL.**

Rallus elegans Audubon, Bds. Amer., folio ed., 3, pl. 203, 1834—Kentucky, South Carolina, Louisiana, and north to Camden, New Jersey, and Philadelphia=Charleston, South Carolina; Sharpe, Cat. Bds. Brit. Mus., 23, p. 8, 1894—part, except Cuba; Cooke, Bull. U. S. Dept. Agr., 128, p. 14, 1914 (dist. and migr.); Bent, Bull. U. S. Nat. Mus., 135, p. 260, 1926 (life hist.).

Rallus elegans var. *elegans* Ridgway, Bull. Nutt. Orn. Cl., 5, p. 139, 1880 (dist. char.).

Rallus elegans elegans Peters, Bds. World, 2, p. 160, 1934 (range).

Range.—Breeds from New York, southwestern Ontario, southern Minnesota, and Nebraska, south to Florida and the Gulf coast west to Texas. Winters in the southern part of the above range.

Field Museum Collection.—35: Wisconsin (Beaver Dam, 7); Illinois (Diamond Lake, 1; Chicago, 8; Pinkham, 1; Worth, 11; Homewood, 2; Deerfield, 1); Indiana (Koutes, 1); North Carolina (Raleigh, 2); Florida (near Enterprise, 1).

Conover Collection.—13: Wisconsin (Big Muskego Lake, 1); Illinois (Wheaton, 5; Warrenville, 3; San Jose, Mason County, 1); Texas (Port O'Connor, Calhoun County, 1; Tivoli, Refugio County, 2).

****Rallus elegans ramsdeni* Riley.¹ CUBAN KING RAIL.**

Rallus elegans ramsdeni Riley, Proc. Biol. Soc. Wash., 26, p. 83, 1913—Guantánamo, Cuba (type in U. S. National Museum); Todd, Ann. Carnegie Mus., 10, p. 200, 1916—Siguanea, Isle of Pines (crit., meas.); Peters, Bds. World, 2, p. 160, 1934 (range).

Rallus elegans (not of Audubon) Sharpe, Cat. Bds. Brit. Mus., 23, p. 8, 1894—part, Cuba (San Cristobal).

Range.—Cuba and the Isle of Pines.

Field Museum Collection.—1: Cuba (Palacios, 1).

Conover Collection.—3: Cuba (Arango, Havana, 2; Mordaza, Santa Clara, 1).

****Rallus elegans obsoletus* Ridgway.² CALIFORNIA KING RAIL.**

Rallus elegans var. *obsoletus* Ridgway, Amer. Nat., 8, p. 111, 1874—San Francisco, California (type in U. S. National Museum).

¹ *Rallus elegans ramsdeni* Riley: Differs from typical *elegans*, of North America, in its slightly smaller dimensions, paler under parts, and especially in having a patch of gray behind the eye. Some North American specimens are slightly grayish behind the eye, but never have the patch as light or as extensive as do the Cuban birds.

² *Rallus elegans obsoletus* Ridgway: Differs from *R. e. elegans* in being much grayer above, with the centers to the feathers browner, less blackish, and much less evident; breast cinnamon, much paler and less rufous; flanks dull brown (not black), with white bars much narrower.

Rallus obsoletus Ridgway, Bull. Nutt. Orn. Cl., 5, p. 139, 1880 (dist. char.); Cooke, Bull. U. S. Dept. Agr., 128, p. 18, 1914 (dist. and migr.); Silliman, Condor, 17, p. 201, 1915—Monterey Bay, Calif.; Grinnell, Bryant, and Storer, Game Bds. Calif., p. 283, 1918 (life hist.); Bent, Bull. U. S. Nat. Mus., 135, p. 267, 1926 (life hist.); De Groot, Condor, 29, p. 259, 1927 (nesting and enemies); Williams, Condor, 31, p. 52, 1929 (feeding habits, photos).

Rallus longirostris subsp. *obsoletus* Sharpe, Cat. Bds. Brit. Mus., 23, p. 15, 1894—part, California.

Rallus obsoletus obsoletus van Rossem, Condor, 31, p. 214, 1929 (descr. and char.).

Rallus elegans obsoletus Peters, Bds. World, 2, p. 159, 1934 (range).

Rallus longirostris obsoletus Oberholser, Proc. U. S. Nat. Mus., 84, p. 340, 1937 (descr.).

Range.—Salt-water marshes of California from Humboldt Bay south to Monterey Bay.

Field Museum Collection.—11: California (Palo Alto, 6; Alameda, 2; San Rafael, Marin County, 3).

Conover Collection.—5: California (Redwood City, San Mateo County, 3; Palo Alto, Santa Clara County, 2).

**Rallus elegans levipes* Bangs.¹ LIGHT-FOOTED RAIL.

Rallus levipes Bangs, Proc. New Engl. Zool. Club, 1, p. 45, 1899—Newport Landing, Los Angeles County (now in Orange County), California (type in Museum of Comparative Zoology, Cambridge, Mass.); Allen, Auk, 16, p. 339, 1899 (republishing orig. descr.); Willett, Condor, 8, p. 151, 1906 (breeding in fresh-water marsh); Cooke, Bull. U. S. Dept. Agr., 128, p. 18, 1914 (distr. and migr.); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 289, 1918 (life hist.); Bent, Bull. U. S. Nat. Mus., 135, p. 272, 1926 (life hist.).

Rallus obsoletus levipes van Rossem, Condor, 31, p. 214, 1929 (dist. char.).

Rallus elegans levipes Peters, Bds. World, 2, p. 159, 1934 (range).

Rallus longirostris levipes Oberholser, Proc. U. S. Nat. Mus., 84, p. 388, 1937 (descr.).

Range.—Salt-water marshes of California from Santa Barbara south to San Diego Bay.

Field Museum Collection.—1: California (San Diego County, 1).

Conover Collection.—3: California (Anaheim Landing, Orange County, 1; Playa del Rey, Los Angeles County, 1; Pacific Beach, San Diego County, 1).

¹ *Rallus elegans levipes* Bangs: Tarsus and middle toe shorter than in *obsoletus*, from which it also differs in having the upper parts darker, more olive, less grayish brown; the breast, front and sides of neck cinnamon rufous, instead of dull cinnamon; ground color of flanks darker. From *beldingi* it differs in having the upper parts more olivaceous with the dark centers to the feathers less conspicuous; the breast less reddish, more cinnamon; flanks lighter, with the white bars wider.

Rallus elegans yumanensis Dickey.¹ YUMA KING RAIL.

Rallus yumanensis Dickey, Auk, 40, p. 90, 1923—Bard, Imperial County, California (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles); Bent, Bull. U. S. Nat. Mus., 135, p. 275, 1926 (life hist.).

Rallus obsoletus yumanensis van Rossem, Condor, 31, p. 215, 1929 (dist. char.).

Rallus elegans yumanensis Peters, Bds. World, 2, p. 159, 1934 (range).

Rallus longirostris yumanensis Oberholser, Proc. U. S. Nat. Mus., 84, p. 341, 1937 (descr.).

Range.—Marshes along the Colorado River from Laguna Dam south to Yuma.

***Rallus elegans beldingi** Ridgway. BELDING'S RAIL.

Rallus beldingi Ridgway, Proc. U. S. Nat. Mus., 5, p. 345, 1882—Espiritu Santo Island, Lower California (type in U. S. National Museum); Sharpe, Cat. Bds. Brit. Mus., 23, p. 10, 1894 (descr.); Cooke, Bull. U. S. Dept. Agr., 128, p. 17, 1914 (distr. and migr.); Bent, Bull. U. S. Nat. Mus., 135, p. 266, 1926 (life hist.).

Rallus obsoletus beldingi van Rossem, Condor, 31, p. 214, 1929 (dist. char.).

Rallus elegans beldingi Peters, Bds. World, 2, p. 159, 1934 (range).

Rallus longirostris beldingi Oberholser, Proc. U. S. Nat. Mus., 84, p. 338, 1937—La Paz, San Jorge, San José Island, Santa Margarita Island, Espiritu Santo Island (descr.).

Range.—Marshes of the coasts of Lower California (and some of the adjacent islands) from San José Island on the east and San Quentin Bay on the west, southward.

Conover Collection.—4: Lower California (La Paz, 4).

Rallus elegans rhizophorae Dickey.² SONORAN KING RAIL.

Rallus obsoletus rhizophorae Dickey, Trans. San Diego Soc. Nat. Hist., 6, p. 235, 1930—Tóbari Bay, Sonora, Mexico (type in coll. of D. R. Dickey, now in the University of California at Los Angeles).

¹ *Rallus elegans yumanensis* Dickey: Said to differ from *levipes* by duller and more olivaceous outer superior wing coverts and alula, by paler coloration of under parts, and more slender tarsus and bill; from *obsoletus* by having a brighter, more pinkish, foreneck and breast, smaller foot, shorter and much more slender tarsus and bill; from *saturatus* by brighter and more pinkish under parts, more whitish abdomen, generally narrower white barrings on sides and flanks, straighter, more slender, much shorter bill, and more slender tarsus.

² *Rallus elegans rhizophorae* Dickey: Said to differ from *yumanensis* in having decidedly darker and very much grayer upper parts and grayer flanks. This grayness distinguishes it from all other western races with the possible exception of *nayaritensis*.

It is said to be like *nayaritensis* on the upper parts, but in *nayaritensis* the avellaneous color of the breast is reduced in area until it has the appearance of a broad, ill-defined, pectoral band with foreneck and rest of under parts much paler.

(?) *Rallus tenuirostris* (not of Ridgway?) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 316, 1903—part, Mazatlan.

Rallus elegans rhizophorae Peters, Bds. World, 2, p. 159, 1934 (range).

Rallus longirostris rhizophorae Oberholser, Proc. U. S. Nat. Mus., 84, p. 342, 1937—Tóbari Bay, Guaymas, Viejo Yaqui Lagoon (descr.).

Range.—Coast of Sonora, Mexico, from Guaymas south to the northern boundary of Sinaloa.

***Rallus elegans tenuirostris* Ridgway. MEXICAN KING RAIL.**

Rallus elegans var. *tenuirostris* "Lawrence" Ridgway, Amer. Nat., 8, p. 111, 1874—City of Mexico (type in U. S. National Museum); Ridgway, Bull. Nutt. Orn. Cl., 5, p. 139, 1880 (dist. char.).

Rallus tenuirostris Sharpe, Cat. Bds. Brit. Mus., 23, p. 10, 1894 (descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 316, 1903—part, Valley of Mexico, Laguna del Rosario, and Tlaxcala; Cooke, Bull. U. S. Dept. Agr., 128, p. 17, 1914 (distr. and migr.).

Rallus elegans tenuirostris Peters, Bds. World, 2, p. 160, 1934 (range).

Rallus longirostris tenuirostris Oberholser, Proc. U. S. Nat. Mus., 84, p. 336, 1937—Valley of Mexico; Lerma, Tlaxcala (descr.).

Range.—Mexican states of Mexico and Tlaxcala, chiefly in the Valley of Mexico.

***Rallus elegans nayaritensis* McLellan.¹ NAYARIT KING RAIL.**

Rallus nayaritensis McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 9, 1927—San Blas, Nayarit, Mexico (type in California Academy of Sciences).

Rallus elegans nayaritensis Peters, Bds. World, 2, p. 160, 1934 (range).

Rallus longirostris nayaritensis Oberholser, Proc. U. S. Nat. Mus., 84, p. 343, 1937 (descr.).

Range.—Known only from the type locality (San Blas, Nayarit, Mexico).

****Rallus limicola limicola* Vieillot. VIRGINIA RAIL.**

Rallus limicola Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 558, 1819—based on "The American Water-Rail" Edwards, Glean. Nat. Hist., 2, p. 144, pl. 279; Pennsylvania.

Rallus virginianus (not of Linnaeus) Sharpe, Cat. Bds. Brit. Mus., 23, p. 16, 1894—part, except Pacific coast west of Rocky Mountains; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 316, 1903—part, Mexico (Matamoros, Jalapa, Tizimin), Guatemala (Dueñas, Ciudad Vieja,

¹ *Rallus elegans nayaritensis* McLellan: Said to be nearest to *yumanensis*, but darker on the upper parts, with narrower white flank bars and shorter culmen and toes. From *pallidus* it is supposed to differ in its darker upper parts, paler breast, and longer culmen, and from *levipes* in being not so highly colored, with proportionately longer culmen, tarsus, and toes.

Described from one unsexed, immature specimen.

Antigua) and "Cuba"; Goldman, Condor, **10**, p. 181, 1908—breeding in Mexico; Cooke, Bull. U. S. Dept. Agr., **128**, p. 22, 1914—part, except Pacific coast (distr., migr.); Cahn, Auk, **32**, p. 91, 1915 (food habits in captivity); Bent, Bull. U. S. Nat. Mus., **135**, p. 292, 1926—part, except Pacific coast (life hist.).

Rallus limicola limicola Peters, Bds. World, **2**, p. 160, 1934 (range).

Range.—Breeds from Nova Scotia, New Brunswick, southern Quebec, southern Ontario, southern Manitoba and Saskatchewan, south to North Carolina, Ohio, southern Illinois, Missouri, Nebraska, and Colorado; also in the Valley of Mexico. Winters from North Carolina to Florida, the lower Mississippi Valley, and from eastern Mexico south to Guatemala.

Field Museum Collection.—24: Wisconsin (Beaver Dam, 5; Fox Lake, 5); Illinois (Worth, 3; Beach, 1; Woodlawn, Chicago, 1; Warsaw, 1; Chicago, 3; Deerfield, 1; Fox Lake, 1); Indiana (English Lake, 1); Ohio (Columbus, 1); Massachusetts (unspecified, 1).

Conover Collection.—3: Illinois (Warrenville, 2; Roby, Christian County, 1).

****Rallus limicola zetarius* Peters.¹ WESTERN VIRGINIA RAIL.**

Rallus virginianus pacificus (not *Rallus pacificus* Gmelin, 1789) Dickey, Condor, **30**, p. 322, 1928—five miles west of Corona, Riverside County, California (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles).

Rallus limicola zetarius Peters, Bds. World, **2**, p. 160, 1934—new name for *Rallus virginianus pacificus* Dickey, preoccupied.

Rallus virginianus (not of Linnaeus) Sharpe, Cat. Bds. Brit. Mus., **23**, p. 16, 1894—part, west of Rocky Mountains only; Salvin and Godman, Biol. Centr.-Amer., Aves, **3**, p. 316, 1903—part, Mazatlan; Cooke, Bull. U. S. Dept. Agr., **128**, p. 22, 1914—part, Pacific coast only (distr., migr.); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 291, 1918 (habits, range Calif.); Bent, Bull. U. S. Nat. Mus., **135**, p. 292, 1926—part, Pacific coast (life hist.).

Range.—Pacific coast of North America from British Columbia to northern Lower California. Winters south to Cape San Lucas and northwestern Mexico.

Field Museum Collection.—2: California (Quincy, 1; San Mateo, 1).

Conover Collection.—4: California (Yermo, San Bernardino County, 1; Point Reyes, Marin County, 3).

¹ *Rallus limicola zetarius* Peters: This race has been separated from typical *limicola* because of its larger size. However, in the original description by Dickey, it is shown that this difference in size is only average, as there is an overlapping of measurements. There seem to be no color differences.

****Rallus limicola aequatorialis* Sharpe.¹ EQUATORIAL RAIL.**

Rallus aequatorialis Sharpe, Cat. Bds. Brit. Mus., 23, p. 8, pl. 2, fig. 1, 1894—"Bogotá" (errore); San Lucas and Intag, Ecuador; Lima, Peru (no type designated; the type, examined in the British Museum, is from San Lucas, Ecuador); Goodfellow, Ibis, 1902, p. 230—Santa Catalina Marshes, near Quito, Ecuador; Chubb, Ibis, 1919, p. 47—Cañar (alt. 2,600 meters) and "Antisara (1,200 ft.)" [= Antisana, 12,000 ft.], Ecuador.

Rallus virginianus (not of Linnaeus) Selater, Proc. Zool. Soc. Lond., 1877, p. 523 (note)—Lima, Peru (spec. examined); Berlepsch and Taczanowski, l.c., 1884, p. 313—Yoacsi, Ecuador; idem, l.c., 1885, p. 112—Riobamba, Ecuador; Taczanowski, Orn. Pér., 3, p. 314, 1886—Lima, Peru.

Rallus virginianus aequatorialis Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 19, 1922—Yaguarcocha, near Ibarra (8,000 ft.), and Illiniza (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 174, 1926—Hacienda Garzón, La Carolina, Yaguarcocha, and near Guallabamba, Ecuador (crit.).

Rallus limicola aequatorialis Peters, Bds. World, 2, p. 160, 1934 (range).

Range.—Temperate zone of Ecuador and (?)Peru (one record from Lima).

Conover Collection.—12: Ecuador (Quito, Pichincha, 1; Laguna Totoral, 8; Laguna Yaguarcocha, Imbabura, 1; Laguna San Pablo, Imbabura, 1; Cienega del Chimborazo, 1).

***Rallus limicola antarcticus* King.² ANTARCTIC RAIL.**

Rallus antarcticus King, Zool. Journ., 4, p. 95, 1828—Straits of Magellan (location of type unknown); Selater, Proc. Zool. Soc. Lond., 1867, pp. 333, 339—Chile (crit.); idem and Salvin, l.c., 1868, p. 445—Chile (monog.);

¹ *Rallus limicola aequatorialis* Sharpe, in spite of its widely separated habitat, is so close to the Virginia Rail that with the available material we are not able to indicate any character that holds in every single specimen. As a rule, however, the coloration of the upper parts is paler brownish, and the lateral under tail coverts sometimes have more white. A single, though not very good example obtained by the late Professor Nation near Lima seems to agree with seven from Ecuador (San Lucas, Intag, Cañar, etc.). The so-called "Bogotá" skin in the British Museum, according to Chapman, probably came from Ecuador. The length of the wing, in this form, ranges from 100 to 107; only in one case did we find it as short as 95.

² *Rallus limicola antarcticus* King: Very near to *R. l. aequatorialis*, but generally smaller and distinguished by paler, sandy (buffy) instead of brownish edges to the dorsal plumage; dark gray throat, breast, and upper abdomen (instead of isabelline passing into white along middle of throat, as in *aequatorialis*); flanks much more broadly, as well as more regularly, barred with black and white. Wing, 89–95; bill, 29–32.

The distribution of this rail is very imperfectly known, and its breeding area remains to be ascertained. Venturi claims to have found its nest and eggs near Barracas al Sud, Buenos Aires, but the parent birds were not secured, and as no other naturalist appears to have met with the species in that district during the nesting period, the identification of the eggs may well be questioned.

Material examined.—Argentina: Punta Arenas, 2; Valle del Lago Blanco, Chubut, 1; Lomas de Zamora, Buenos Aires, 1.—Chile: Prov. Santiago, 1; "Central Chile," 3; unspecified, 2.

iidem, *Exot. Orn.*, p. 163, pl. 82, 1869—Chile to Patagonia (crit.); Reed, *Anal. Univ. Chile*, 49, p. 565, 1877—Cauquenes, Colchagua, Chile; Selater and Salvin, *Proc. Zool. Soc. Lond.*, 1878, p. 437—Sandy Point, Magellan Strait; Barrows, *Auk*, 1, p. 276, 1884—Carhué, Buenos Aires; Withington, *Ibis*, 1888, p. 471—Lomas de Zamora, Buenos Aires (spec. examined); Selater and Hudson, *Arg. Orn.*, 2, p. 148, 1889—Argentina (Carhué, Lomas de Zamora); Oustalet, *Miss. Sci. Cap Horn*, 6, Ois., p. B.133, 1891—Punta Arenas; Sharpe, *Cat. Bds. Brit. Mus.*, 23, p. 19, 1893—Chile (Santiago, Punta Arenas) and Argentina (Lomas de Zamora); Reed, *Anal. Univ. Chile*, 93, p. 209, 1896—Chile; Philippi, *Anal. Mus. Nac. Chile*, 15, p. 70, pl. 28, 1902—Santiago, Chile; Scott and Sharpe, *Rep. Princet. Univ. Exp. Patagonia*, 2, *Orn.*, p. 43, 1904—lower Rio Chico, Patagonia; (?) Hartert and Venturi, *Nov. Zool.*, 16, p. 257, pl. 3, fig. 20 (egg), 1909—Barracas al Sud, Buenos Aires (nest and eggs); Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 195, 1910—Patagonia and Buenos Aires (Barracas al Sud, Carhué, Lomas de Zamora); Gibson, *Ibis*, 1920, p. 38—Cape San Antonio, Buenos Aires (July 24, 1899); Marelli, *Mem. Min. Obr. Públ.* for 1922–23, p. 599, 1924—Prov. Buenos Aires.

Rallus uliginosus Philippi, *Arch. Naturg.*, 14, (1), p. 83, 1858—plain of Santiago, Chile (cotypes in Museo Nacional, Santiago de Chile; cf. Gigoux and Looser, *Bol. Mus. Nac. Santiago*, 13, p. 26, 1930); idem, *Anal. Univ. Chile*, 31, p. 278, 1868—Santiago.

Rallus limicola antarcticus Hellmayr, *Field Mus. Nat. Hist.*, *Zool. Ser.*, 19, p. 351, 1932—Santiago Province, Chile (crit.); Peters, *Bds. World*, 2, p. 161, 1932 (range).

Range.—Central Chile and Argentina, from Buenos Aires Province (Lomas de Zamora, June 19; Cape San Antonio, July 24; Carhué; ?Barracas al Sud) to Patagonia (lower Rio Chico, March 30; Valle del Lago Blanco, Chubut, Nov. 27) and the Straits of Magellan (Punta Arenas).¹

**Rallus semiplumbeus* Selater.² BOGOTÁ RAIL.

Rallus semiplumbeus Selater, *Proc. Zool. Soc. Lond.*, 24, p. 31, 1856—Bogotá, Colombia (type in British Museum); idem and Salvin, l.c., 1868, p. 445—Bogotá (monog.); iidem, *Exot. Orn.*, p. 165, pl. 83, 1869—Bogotá; Pelzeln, *Ibis*, 1875, p. 332—"Spanish Guiana"—Bogotá; Taczanowski, *Orn. Pér.*, 3, p. 314, 1886—Bogotá; Sharpe, *Cat. Bds. Brit. Mus.*, 23, p. 19, pl. 3,

¹ Quite doubtful is *Rallus peruvianus* Taczanowski (*Orn. Pér.*, 3, p. 313, 1886) which rests on a single unsexed bird from an unknown locality in the Raimondi Collection, at the University of Lima. From the description it would seem to resemble *R. l. antarcticus* in coloration (under parts gray with black-and-white banded flanks), but the length of the wing is stated to be 112 mm., which considerably exceeds the measurements of the Antarctic Rail.

² *Rallus semiplumbeus* Selater, judging from a few Bogotá skins, can hardly be more than a geographical race of *R. limicola*. However, Salvadori and Festa claim an immature male from the vicinity of Sigisig, hence in the range of *R. l. aequatorialis*, to be referable to the Bogotá Rail, as it shows some gray feathering below. The inter-relationship of the two birds therefore seems to require thorough investigation with the help of adequate material.

1894—Bogotá; (?)Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 39, 1900—Laguna di Kingora (Sigsig), Ecuador (one immature); Chapman, Bull. Amer. Mus. N. H., 36, p. 216, 1917—Savanna at Bogotá; (?)idem, l.c., 55, p. 175, 1926—Ecuador (ex Salvadori and Festa); Peters, Bds. World, 2, p. 161, 1934 (range).

Limnopardalis semiplumbea Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 321, 1890—Bogotá.

Range.—Temperate zone of Colombia (Bogotá Savanna) and (?)Ecuador (Laguna Kingora, Sigsig).

Field Museum Collection.—3: Colombia ("Bogotá," 3).

Rallus aquaticus hibernans Salomonsen.¹ ICELANDIC WATER RAIL.

Rallus aquaticus hibernans Salomonsen, Vidensk. Medd. Naturhist. Foren., 90, p. 360, 1931—Husavik, Iceland (type in coll. of L. Schiøler, now in Copenhagen Museum).

Rallus aquaticus (not of Linnaeus) Schiøler, Dansk Orn. Foren. Tidskr., 2, p. 46, 1906—Julianeabaab, Greenland; Helms, l.c., 3, p. 7, 1908—Angmagsalik (Jan. 7, 1903).

Rallus aquaticus aquaticus Helms, Medd. Grønl., 58, p. 241, 1926—Cape Dan, Angmagsalik.

Range.—Resident on Iceland. Accidental in the Faroes, in Greenland (Julianeabaab, Angmagsalik) and probably Jan Mayen (Oct. 15).²

Genus **PARDIRALLUS** Bonaparte³

Pardirallus Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, No. 12, p. 599, 1856—type, by monotypy, *Rallus variegatus* Gmelin=*Rallus maculatus* Boddaert.

Limnopardalus Cabanis, Journ. Orn., 4, No. 24, p. 428, 1856—type, by monotypy, *Rallus variegatus* Gmelin=*Rallus maculatus* Boddaert.

Limnopardalis Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 320, 1890—emendation of *Limnopardalus* Cabanis.

¹ *Rallus aquaticus hibernans* Salomonsen: Similar to *R. aquaticus aquaticus* Linnaeus, of Europe, but paler grayish-blue or brownish gray underneath, and more purely brown, less olivaceous, above. According to Salomonsen, the specimens taken in Greenland are of the Icelandic race.

² The single specimen ever recorded from Jan Mayen (by Fischer and Pelzeln, Vög. Säug. Jan Mayen, p. 7, in Die Internationale Polarforschung 1882–83. Die Oesterreichische Polarstation Jan Mayen, 3, 1886) cannot now be found in the Vienna Museum.

³ It is with reluctance that this genus is maintained. The structural divergencies are not very striking.

Pardirallus maculatus insolitus (Bangs and Peck).¹ YCACOS LAGOON RAIL.

Limnopardalus maculatus insolitus Bangs and Peck, Proc. Biol. Soc. Wash., 21, p. 43, 1908—Ycacos Lagoon, British Honduras (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 168, 1930).

Pardirallus maculatus insolitus Peters, Bds. World, 2, p. 169, 1934 (range).

Range.—Ycacos Lagoon, British Honduras.

***Pardirallus maculatus inoptatus** (Bangs).² CUBAN RAIL.

Limnopardalus maculatus inoptatus Bangs, Proc. N. Engl. Zool. Cl., 4, p. 90, 1913—Jaruco, Province of Havana, Cuba, Greater Antilles (type in Museum of Comparative Zoology, Cambridge, Mass.).

Rallus variegatus (not of Gmelin) d'Orbigny, in Sagra, Hist. Ile de Cuba, Ois., p. 261, 1839—Cuba.

Limnopardalus variegatus Gundlach, Journ. Orn., 4, p. 428, 1856—Cuba; idem, Rep. Fís.-Nat. Cuba, 1, p. 361, 1866—Cuba; idem, Journ. Orn., 23, p. 357, 1875—Cuba (habits, egg descr.); idem, Orn. Cub., p. 299, 1876—Cuba.

Rallus maculatus (not of Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 444—part, Cuba; Cory, Bds. W. Ind., p. 253, 1889—Cuba; idem, Cat. W. Ind. Bds., p. 91, 1892—Cuba.

Limnopardalus maculatus Sharpe, Cat. Bds. Brit. Mus., 23, p. 28, 1894—part, Cuba.

Pardirallus maculatus inoptatus Barbour, Mem. Nutt. Orn. Cl., 6, p. 54, 1923—provinces of Havana and Matanzas, Cuba; Peters, Bds. World, 2, p. 170, 1934—Cuba.

Range.—Provinces of Havana and Matanzas, island of Cuba, Greater Antilles.³

Field Museum Collection.—2: Cuba (unspecified, 2).

***Pardirallus maculatus maculatus** (Boddaert). SPOTTED RAIL.

Rallus maculatus Boddaert, Tabl. Pl. Enl., p. 48, Dec., 1783—based on "Le Râle tacheté, de Cayenne" Daubenton, Pl. Enl., pl. 775, Cayenne;

¹ *Pardirallus maculatus insolitus* (Bangs and Peck): "Similar to *P. m. maculatus*, but slightly smaller, with smaller bill and feet; wings much less marked with white; the brown portions of plumage (wings, back, rump, etc.) much darker, seal brown instead of mummy brown. Wing (unsexed type), 121; tail, 43; tarsus, 40; middle toe without claw, 39½; bill, 48." (Bangs and Peck, l.c.)

This form is known only from the unique type.

² *Pardirallus maculatus inoptatus* (Bangs): Similar to *P. m. maculatus*, but much darker, the black markings being much larger and the white spots correspondingly smaller; rump unspotted; wings much less spotted, etc. Throat white as in the nominate race.

³ A spotted rail also occurred in Jamaica, but became extinct before any specimens were preserved.

- Schlegel, Mus. Pays-Bas, Ralli, p. 13, 1865—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 444—part, Cayenne, Brazil (Pará), Paraguay, and "New Granada" (monog.); Pelzeln, Orn. Bras., 3, p. 315 (note), 1870—Cayenne; idem, Ibis, 1873, p. 122—Cayenne; Durnford, l.c., 1878, p. 65—Rivadavia, northwest of Buenos Aires; Barrows, Auk, 1, p. 276, 1884—Concepción del Uruguay, Entre Ríos (captive bird); Withington, Ibis, 1888, p. 471—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 2, p. 148, pl. 19, 1889—Argentina (Buenos Aires); Dalgleish, Proc. Roy. Phys. Soc. Edin., 10, p. 86, 1889—Est. Ytañú, Paraguay (nesting habits, eggs); Holland, Ibis, 1892, p. 209—Est. Espartillar, Buenos Aires; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Gibson, Ibis, 1920, p. 37—Cape San Antonio, Buenos Aires.
- Rallus variegatus* Gmelin, Syst. Nat., 1, (2), p. 718, 1789—based on "Le Râle tacheté, de Cayenne" Daubenton, Pl. Enl., pl. 775; Jardine, Ann. Mag. Nat. Hist., 20, p. 376, 1847—Tobago; Burmeister, Syst. Uebers. Th. Bras., 3, p. 382, 1856—Paraguay to Guiana.
- Rallus nivosus* Swainson, Anim. Menag., p. 361, Dec. 31, 1837—no locality given (type in coll. of W. Swainson, now in University Museum, Cambridge, Engl.).
- Aramides maculatus* Hartlaub, Syst. Ind. Azara, p. 23, 1847—Paraguay (ex Azara, No. 370); Léotaud, Ois. Trinidad, p. 559, 1866—Trinidad.
- Limnopardalus maculatus* Sharpe, Cat. Bds. Brit. Mus., 23, p. 28, 1894—part, spec. a-i, Buenos Aires (Lomas de Zamora), Brazil (Pernambuco), Rio Amazon, Surinam, Tobago, Trinidad, and "Bogotá"; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 147, 1899—Pelotas, Rio Grande do Sul; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—Lagunas de Malvinas, Tucumán; Hellmayr, Nov. Zool., 13, p. 52, 1906—Caroni Swamp, Trinidad; Ihering, Cat. Faun. Braz., 1, p. 27, 1907—Buenos Aires (range); Penard, Vog. Guyana, 1, p. 200, 1908—Surinam; Berlepsch, Nov. Zool., 15, p. 299, 1908—Cayenne; Hartert and Venturi, l.c., 16, p. 257, 1909—Barracas al Sud, Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 195, 1910 (range in Argentina); Snethlage, Bol. Mus. Goeldi, 8, p. 71, 1914—Pará, Brazil; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 151, 1928—Pará.
- Pardirallus maculatus* Chubb, Ibis, 1919, p. 48—Trujillo, Libertad, and Eten, Lambayeque, Peru; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 39, 1922—Lagunillas, Mérida, Venezuela; Tremoleras, El Hornero, 2, p. 11, 1920—Uruguay (Montevideo, Canelones, Maldonado, Treinta y Tres, Cerro Largo); Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Pereyra, l.c., 3, p. 161, 1923—Escobar, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 600, 1924—Buenos Aires Province; Smyth, El Hornero, 4, p. 5, 1927—Argentina (egg descr.).
- Pardirallus maculatus maculatus* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 480, 1929—Quixada, Ceará, Brazil; Peters, Bds. World, 2, p. 170, 1934 (range); Roberts, Trop. Agric., 11, p. 90, 1934—Trinidad; Belcher and Smoker, Ibis, 1935, p. 281—Caroni Marshes, Trinidad (nest and eggs); Brodkorb, Proc. Biol. Soc. Wash., 50, p. 33, 1937—Horqueta, Paraguay.

Range.—Locally in the greater part of tropical South America from the islands of Trinidad and Tobago and Venezuela south to Tucumán, Paraguay, Uruguay, and Buenos Aires; also recorded from western Peru (Eten and Trujillo).¹

Field Museum Collection.—6: Venezuela (Lagunillas, Mérida, 2; Lake Valencia, Aragua, 1; Maracay, Aragua, 1); Brazil (Quixada, Ceará, 1; Joinville, St. Catharina, 1).

Conover Collection.—7: Paraguay (Horqueta, 5; Villa Rica, 2).

Genus AMAUROLIMNAS Sharpe

Amaurolimnas Sharpe, Bull. Brit. Orn. Cl., 1, p. xxviii, 1893—type, by orig. desig., *Rallus concolor* Gosse.

Amaurolimnas concolor concolor (Gosse). JAMAICAN UNIFORM CRAKE.

Rallus concolor Gosse, Bds. Jamaica, p. 369, 1847—Basin Spring and Black River (St. Elizabeth's), Jamaica (cotypes in British Museum); idem, Illust. Bd. Jam., pl. 102, 1849; Albrecht, Journ. Orn., 10, p. 206, 1862—Jamaica (ex Gosse); March, Proc. Acad. Nat. Sci. Phila., 1864, p. 69—ponds and streams in the hills of Jamaica (egg descr.).

Porzana concolor Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 452—part, Jamaica; Cory, Auk, 5, p. 54, 1888—Jamaica (descr.); idem, Bds. W. Ind., p. 255, 1889—Jamaica; idem, Cat. W. Ind. Bds., p. 91, 1892—Jamaica; Scott, Auk, 9, p. 11, 1892—Jamaica (not found by author).

Amaurolimnas concolor Sharpe, Cat. Bds. Brit. Mus., 23, p. 87, 1894—part, spec. a, b, i, Jamaica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 321, 1903—part, Jamaica.

Amaurolimnas concolor concolor Peters, Bds. World, 2, p. 171, 1934—Jamaica.

Range.—Formerly island of Jamaica, Greater Antilles (now extinct).

***Amaurolimnas concolor castaneus** (Pucheran).² CONTINENTAL UNIFORM CRAKE.

¹ *Additional material examined*.—Venezuela: El Valle, Mérida, 1; Mérida, 1.—French Guiana: Cayenne, 1.—Trinidad: Caroni, 2.—Brazil: São Lourenço, Pernambuco, 1; Bahia, 1; São Lourenço, Rio Grande do Sul, 1; Rio Grande, 2; Pelotas, 1.

² *Amaurolimnas concolor castaneus* (Pucheran): Similar to the nominate race, but more olivaceous above and deeper rufous below.

The single available Jamaican bird is indeed darker brown above and paler underneath than any of the nine continental specimens with which it was compared. While birds from northern Central America seem to run smaller than those from extreme southern Brazil, specimens as yet are too few to make it at

Rallus castaneus Pucheran,¹ Rev. Mag. Zool., (2), 3, p. 279, 1851—"Brésil" (type in Paris Museum).

Rufirallus boeckii Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 599, Sept., 1856—no locality stated=Brazil² (type in Berlin Museum).

Corethrura cayennensis(?) (not *Rallus cayennensis* Gmelin) Moore, Proc. Zool. Soc. Lond., 27, p. 64, 1859—Omoa, Honduras; Sclater and Salvin, Ibis, 1859, p. 230—Omoa (ex Moore).

Corethrura gautemalensis [sic] Lawrence, Proc. Acad. Nat. Sci. Phila., 15, p. 106, 1863—Guatemala (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

Rallina castanea Schlegel, Mus. Pays-Bas, Ralli, p. 17, 1865—Bolivia (d'Orbigny) and Brazil (descr.).

Porzana concolor (not *Rallus concolor* Gosse) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 452—part, Guatemala, Honduras (Omoa), and Brazil (Bahia); Pelzeln, Orn. Bras., 3, p. 316, 1870—Engenho do Gama, Matto Grosso, and Bahia, Brazil; Salvin, Ibis, 1873, p. 373—Chontales, Nicaragua; idem, Ibis, 1886, p. 176—Merumé Mountains, British Guiana.

all certain that the race *gautemalensis* should be recognized. Measurements of our specimens are as follows:

MEASUREMENTS

	Wing	Tarsus	Bill
One adult male	118	40	27
Peralta, Costa Rica			
One adult male	117	40	25
Alajuela, San Carlos, Costa Rica			(damaged)
One adult	124	37	27.5
Panama			
One adult	123	36	27
"Bogotá"			
One adult male	122	39	26
Sara-Yaco, Ecuador			
One adult female	127	43	27
Sara-Yaco, Ecuador			
One immature male	125	42	25
San Mateo, Esmeraldas, Ecuador			
One adult male	120	40	25
Raya Yaco, Ecuador			
One adult female	123	41	23
Raya Yaco, Ecuador			
One adult female	120	41	27
Villa Acará, Pará, Brazil			
One adult	135	45	29
Bahia			
Two adults	125, 130	42, —	28, 29
Eastern Brazil			
One adult male	130	39	26
Engenho do Gama, Matto Grosso, Brazil			
Two adult males	125, 130	40, 43	28
Iguapé, São Paulo, Brazil			

Chapman (Bull. Amer. Mus. N. H., 36, p. 217, 1936) gives decidedly smaller dimensions for specimens (females and immature males) from Guatemala to Barbacoas.

¹ *Rallus castaneus* Lesson (Traité d'Orn., p. 537, 1831) is a nomen nudum.

² Cf. Schlegel, Mus. Pays-Bas, Ralli, p. 17, 1865.

Erythrolimnas boeckii Heine and Reichenow, Nomencl. Mus. Hein., p. 320, 1890—Bolivia.

Amaurolimnas concolor Sharpe, Cat. Bds. Brit. Mus., 23, p. 87, 1894—part, spec. c-g, Guatemala, Nicaragua (Chontales), British Guiana (Merumé Mountains), and Brazil (Bahia); Hartert, Nov. Zool., 9, p. 604, 1902—San Javier, Prov. Esmeraldas, Ecuador; Ihering, Rev. Mus. Paul., 5, "1901," p. 286, 1902—Iguapé, São Paulo; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 321, 1903—part, Guatemala to Brazil; Ihering, Cat. Faun. Braz., 1, p. 29, 1907—Iguapé and Ubatuba, coast of São Paulo; Penard, Vog. Guyana, 1, p. 205, 1908—Surinam(?); Chubb, Bds. Brit. Guiana, 1, p. 69, 1916—Supenaam River, Arawai River, and Merumé Mountains; Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—San Juan del Norte, Nicaragua; Naumburg, Bull. Amer. Mus. N. H., 60, p. 72, 1930—Matto Grosso.

Amaurolimnas concolor guatemalensis Chapman, Bull. Amer. Mus. N. H., 36, p. 217, 1917—Barbacoas, Nariño, Colombia (crit.); idem, l.c., 55, p. 177, 1926—Ecuador; Peters, Bull. Mus. Comp. Zool., 71, p. 301, 1931—Almirante, Panama; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 302, 1932—Omoa, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 121, 1932—Guatemala; Peters, Bds. World, 2, p. 171, 1934—Guatemala to Ecuador and São Paulo; Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Chiriquí and Almirante, Panama.

Range.—Recorded from Mexico (Oaxaca), Guatemala, Honduras (Omoa), Nicaragua (Chontales; San Juan del Norte), Costa Rica (Peralta; Alajuéla), Panama (Chiriquí; Almirante), Colombia ("Bogotá," Barbacoas, Nariño), Ecuador (San Javier and San Mateo, Prov. Esmeraldas; Raya Yaco; Sara-Yaco), British Guiana (Supenaam River; Arawai River; Merumé Mountains), Brazil (Rio Acará; Aveiros, Rio Tapajóz;¹ vicinity of Bahia; Engenho do Gama, Rio Guaporé, Matto Grosso; Ubatuba and Iguapé, São Paulo), and eastern Bolivia.²

Conover Collection.—11: Mexico (Tutla, Oaxaca, 3); Costa Rica (Peralta, 1; Alajuéla, San Carlos, 1); Ecuador (Sara-Yaco, Rio Bobonaza, 2; San Mateo, Esmeraldas, 1; Raya Yaco, 2); Brazil, Pará (Villa Acará, Rio Acará, 1).

Genus CYANOLIMNAS Barbour and Peters³

Cyanolimnas Barbour and Peters, Proc. New Engl. Zool. Cl., 9, p. 95, 1927—type, by monotypy, *Cyanolimnas cerverei* Barbour and Peters.

¹ A young male in the Stockholm Museum examined.

² This species appears to be of very local occurrence, there being but a few records from each of the various countries. The three Mexican specimens listed above have just been received as we go to press. Measurements of the wings run from 116 to 117 mm.

³ *Cyanolimnas* Barbour and Peters: "Bill moderate, somewhat longer than head, swollen basally; nostril situated about midway in nasal groove, which is

Cyanolimnas cerverai Barbour and Peters.¹ ZAPATA RAIL.

Cyanolimnas cerverai Barbour and Peters, Proc. New Engl. Zool. Cl., 9, p. 95, 1927—Santo Tomás, Zapata Peninsula, Cuba, Greater Antilles (type in Museum of Comparative Zoology, Cambridge, Mass.); Barbour, Auk, 45, p. 31, pl. 4, 1928—Zapata Swamp, Cuba; Peters, Bds. World, 2, p. 174, 1934—Cuba.

Range.—Zapata Peninsula, Cuba, Greater Antilles.

Genus **ARAMIDES** Pucheran

Aramides Pucheran, Rev. Zool., 8, p. 277, 1845—type, by subs. desig.² (Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 446), *Fulica cayennensis* Gmelin=*Fulica cajanea* P. L. S. Müller.

Ortygarchus Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 759, 1849—new name for *Aramides* Pucheran.

***Aramides mangle** (Spix). SPIX'S WOOD RAIL.

Gallinula mangle Spix, Av. Spec. Nov. Bras., 2, p. 74, pl. 97, 1825—"ad litora maris in locis paludosis, arbustis mangliferis obsitis"—coast of Bahia, Brazil⁴ (cotypes in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 713, 1906).

Aramides mangle Burmeister, Syst. Uebers. Th. Bras., 3, p. 385, 1856—northern Brazil to "Guiana" (errore); Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 449—Bahia (monog.); Pelzeln, Orn. Bras., 3, p. 316, 1870—Sapitiba (sea coast near Piehy), Rio de Janeiro; Sharpe, Cat. Bds. Brit. Mus., 23, p. 54, 1894—Bahia; Ihering, Cat. Faun. Braz., 1, p. 28, 1907—Rio de Janeiro to Bahia; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 95, 1910—[Aramação], coast of Piahy; Lima, Rev. Mus. Paul., 12, (2), p. 96, 1920—Ilhéos, Bahia; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 229, 1924—Amaração; Hellmayr, Field Mus.

only half as long as bill; culmen ending in a point in the frontal feathering; wing rounded, third, fourth, and fifth primaries longest, the second equal to the seventh; tail very short, about two-fifths as long as wing, the feathers sparsely barbed; tarsus short, less than half the length of the wing and about as long as bill; toes fairly stout, the middle one about the length of the tarsus." (Barbour and Peters, l.c.)

¹ *Cyanolimnas cerverai* Barbour and Peters: "Forehead and anterior part of crown gray, shading into dark brown on the crown; back and wing coverts brownish olive, becoming brown on rump and upper tail coverts; wings and tail blackish; throat white; rest of under parts slate gray, becoming olive brown on the flanks, which are narrowly edged with white; under tail coverts white; bill yellowish green terminally, greenish medially, red at the base; legs and feet red. Wing, (male) 110, (female) 99; tail, 46, (female) 40; tarsus, 49, (female) 43; bill, 48, (female) 45." (Barbour and Peters, l.c.)

In coloration, this remarkable rail closely resembles *Rallus sanguinolentus*.

² Gray (Cat. Gen. Subgen. Bds., p. 120, 1855)—probably by inadvertence—designated as type *Rallus cayannensis* Gmelin, a species not originally included in the genus, his action being therefore invalid.

³ Suggested as type locality by Hellmayr (Field Mus. Nat. Hist., Zool. Ser., 12, p. 481, 1929).

Nat. Hist., Zool. Ser., 12, p. 481, 1929—Arára, Piauíhy; Peters, Bds. World, 2, p. 174, 1934 (range); Pinto, Rev. Mus. Paul., 19, p. 72, 1935—Bahia (Corupéba, Madre de Deus; Bomfim; Ilhéos) and Maranhão (Primeira Cruz).

Range.—Eastern Brazil, from Maranhão to Rio de Janeiro.¹

Conover Collection.—1: Brazil (Arára, Piauíhy, 1).

****Aramides axillaris* Lawrence.² RUFIOUS-CROWNED WOOD RAIL.**

Aramides axillaris Lawrence, Proc. Acad. Nat. Sci. Phila., 13, p. 107, 1863—Barranquilla, Colombia (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 449—Colombia (Barranquilla), British Guiana, and Belize (monog.); Salvin, Ibis, 1874, p. 327—Las Bocas de Silan, northern Yucatan; Lawrence, Mem. Bost. Soc. N. H., 2, p. 311, 1874—Mazatlan, Sinaloa, and San Blas, Nayarit, Mexico; Salvin, in Boucard, Proc. Zool. Soc. Lond., 1883, p. 462—Las Bocas de Silan, Yucatan; Salvin, Ibis, 1886, p. 176—British Guiana (ex Cabanis); Sharpe, Cat. Bds. Brit. Mus., 23, p. 56, 1894—Venezuela (range); Chapman, Bull. Amer. Mus. N. H., 6, p. 79, 1894—Moruga River, Trinidad; Bangs, Proc. Biol. Soc. Wash., 13, p. 92, 1899—Chirua, Santa Marta, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 318, pl. 77, 1903—Mexico (Mazatlan, San Blas, Las Bocas de Silan), British Honduras (Belize), Colombia, Venezuela, Trinidad, and British Guiana; Hellmayr, Nov. Zool., 13, p. 52, 1906—Caroni River and Chaguaramas, Trinidad; Bangs, Amer. Natur., 41, p. 178, 1907—Colombia (Barranquilla, Chirua), Yucatan (Mugeres Island), Mexico (Acapulco, Guerrero; San Blas, Tepic; Mazatlan), Costa Rica, and British Guiana (monog.); Carriker, Ann. Carnegie Mus., 6, p. 408, 1910—Costa Rica (Lepanto; ?Carrillo); Chubb, Bds. Brit. Guiana, 1, p. 67, 1916—Bartica Grove; Todd and Carriker, Ann. Carnegie Mus., 14, p. 178, 1922—Chirua, Colombia (ex Bangs); Chapman, Bull. Amer. Mus. N. H., 55, p. 176, 1926—Puná Viejo, Jambeli, and La Chonta, Ecuador; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 11, 1927—San Blas, Nayarit, Mexico; Peters, Bull. Mus. Comp. Zool., 71, p. 300, 1931—Quebrada Nigua, Almirante Bay, Panama (crit.); idem, Bds. World, 2, p. 176, 1934 (range); Roberts, Trop. Agric., 11, p. 90, 1934—Trinidad; Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Almirante, Panama; Belcher and Smooker, Ibis, 1935, p. 283—Caroni River, Trinidad (descr. nest and eggs); Bond, Proc. Acad. Nat. Sci. Phila., 88, p. 357, 1936—Bonacca Island, Bay of Honduras.

¹ The species, though preferring the mangrove swamps along the sea-coast, is not exclusively confined to the tidal areas, there being also a few records from the interior (Arára, Piauíhy; Bomfim [= Villa Nova da Rainha], Bahia).

Additional material examined.—Piauíhy: Amaração, 1; Arára, 1.—Bahia, 2.—Sapitiba, Rio de Janeiro, 1.—“Brazil,” 2.

² *Aramides axillaris* Lawrence seems to be more nearly related to *A. mangle* than to any other species, and may prove to be its northern representative. According to Bangs, birds from Central America are not separable from those of Colombia.

Additional material examined.—Trinidad: Caroni River, 3; Chaguaramas, 1.—Venezuela: Puerto Cabello, 1; Mérida, 1.

Ortygarchus mangle (not *Gallinula mangle* Spix) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 760, 1849—coastal forests.

Aramides ruficollis (not *Fulica ruficollis* Gmelin) Léotaud, Ois. Trinidad, p. 498, 1866—Trinidad.

Ortygarchus axillaris Heine and Reichenow, Nomencl. Mus. Hein., p. 320, 1890—Guiana and Venezuela (Puerto Cabello).

Range.—Caribbean coastal region from British Guiana and Trinidad west to northern Colombia (Cartagena, Barranquilla) and Panama (Almirante Bay) and Pacific coast of Ecuador; also recorded from scattered points in Central America (Lepanto, Costa Rica; Bonacca Island, Honduras; Belize, British Honduras; Mugeris Island and Las Bocas de Silan, Yucatan; Acapulco, Guerrero; San Blas, Nayarit; Mazatlan and Mescales, Sinaloa).

Field Museum Collection.—1: Colombia (Cartagena, 1).

Conover Collection.—9: Mexico (Estero Mescales, Sinaloa, 9).

****Aramides cajanea mexicana* Bangs.¹ MEXICAN WOOD RAIL.**

Aramides albiventris mexicanus Bangs, Amer. Natur., 41, No. 483, p. 185, 1907—Buena Vista, Vera Cruz, Mexico (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 168, 1930).

Aramides cayenensis (not *Fulica cayennensis* Gmelin) Sclater, Proc. Zool. Soc. Lond., 25, p. 206, 1857—San Andres Tuxtla, Vera Cruz.

Aramides cayennensis Sclater, Proc. Zool. Soc. Lond., 27, p. 393, 1859—[northern] Oaxaca [Prov. Villa Alta].

Aramides albiventris (not of Lawrence) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 447—part, southern Mexico; Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 177, 1886—Actopam and Vega de Alatorre, Vera Cruz; Richmond, l.c., 18, p. 627, 1896—Alta Mira, Tamaulipas; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 319, 1903—part, Tamaulipas (Alta Mira, Tampico), Vera Cruz (San Andres Tuxtla, Actopam, Vega de Alatorre, Playa Vicente, Vega del Casadero, Laguna Verde), Valley of Mexico, and [northern] Oaxaca.

Aramides cajanea subsp. β . *Aramides albiventris* Sharpe, Cat. Bds. Brit. Mus., 23, p. 59, 1894—part, spec. a-g, Tampico, Playa Vicente, Vega del Casadero, and Laguna Verde, Mexico.

Aramides mexicanus Miller and Griscom, Amer. Mus. Nov., 25, p. 10, 1921 (crit.).

Aramides cajanea mexicana Peters, Bds. World, 2, p. 174, 1934 (range).

¹ *Aramides cajanea mexicana* Bangs: Similar to *A. c. albiventris*, but darker throughout; the scapulars less suffused with ochraceous; the pale crescentic marking surrounding the black abdominal patch much less extensive and decidedly buffy instead of white.

Four additional specimens from Vera Cruz (Amatlan, Tlacotalpam, Playa Vicente) examined.

Range.—Caribbean slope of eastern Mexico, in states of Tamaulipas (Tampico, Alta Mira), Mexico (Valley of Mexico), Vera Cruz, Oaxaca (Guichicovi, Tutla), Tabasco, and Chiapas.

Conover Collection.—4: Mexico (Tutla, Oaxaca, 4).

****Aramides cajanea albiventris* Lawrence. WHITE-BELLIED WOOD RAIL.**

Aramides albiventris Lawrence, Proc. Acad. Nat. Sci. Phila., 1867, p. 234—British Honduras (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Salvin, Ibis, 1874, p. 328—Las Bocas de Silan, Yucatan; idem, in Boucard, Proc. Zool. Soc. Lond., 1883, p. 462—same locality; idem, Ibis, 1889, p. 378—Cozumel Island; idem, Ibis, 1890, p. 89—Cozumel; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 319, 1903—part, Yucatan (Las Bocas de Silan), Cozumel, British Honduras (Belize), and Guatemala (Choctum); Miller and Griscom, Amer. Mus. Nov., 25, p. 10, 1921 (crit.).

Aramides cayanae subsp. *β. Aramides albiventris* Sharpe, Cat. Bds. Brit. Mus., 23, p. 59, 1894—part, spec. 1-o, Choctum, Cozumel, and Belize.

Aramides albiventris albiventris Bangs, Amer. Natur., 41, p. 183, 1907—part, Belize, British Honduras, and Rio Lagartos, Yucatan (monog.); Austin, Bull. Mus. Comp. Zool., 69, p. 371, 1929—Belize River and Mountain Cow, British Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 120, 1932—Caribbean Guatemala; Carriker and Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 415, 1935—Quiriguá (70 miles from Puerto Barrios), Guatemala; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Uxactun and Chuntuquí, Petén, Guatemala (crit.).

Aramides cajanea albiventris Peters, Bds. World, 2, p. 174, 1934 (range).

Range.—Yucatan Peninsula, Cozumel Island, British Honduras, and Caribbean Guatemala (depts. of Petén, Alta Verapaz, and Izabal).

Field Museum Collection.—3: Yucatan (unspecified, 3).

***Aramides cajanea vanrossemi* Dickey.¹ VAN ROSSEM'S WOOD RAIL.**

Aramides vanrossemi Dickey, Condor, 31, p. 33, col. pl., 1929—Barra de Santiago, Ahuachapan, El Salvador (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles).

Aramides albiventris (not of Lawrence) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 447—part, Pacific coast of Guatemala; Lantz, Trans.

¹ *Aramides cajanea vanrossemi* Dickey: Similar to *A. c. albiventris*, but larger, with much stouter bill, and coloration slightly paler throughout. Bill (in male), 72 mm.

With only a single (not very good) specimen from the Pacific coast of Guatemala, we are not in a position to throw any further light on this form, which appears to be very close indeed to *albiventris*. Van Tyne has pointed out that the color of the soft parts does not furnish any base for its discrimination, but believes it to be separable by slightly paler coloration and larger size.

Kans. Acad. Sci., 16, p. 219, 1899—San José, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 319, 1903—part, Pacific Guatemala (mouth of Rio Samalá and Retalhuleu).

[*Aramides cayanae*] subsp. β . *Aramides albiventris* Sharpe, Cat. Bds. Brit. Mus., 23, p. 59, 1894—part, spec. i, k, Retalhuleu and mouth of Rio Samalá, Guatemala.

Aramides albiventris albiventris Bangs, Amer. Natur., 41, p. 183, 1907—part, Chiapam, Pacific Guatemala (crit.).

Aramides albiventris vanrossemi Griscom, Bull. Amer. Mus. N. H., 64, p. 120, 1932—Ocos, Guatemala; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 12 (in text), 1935 (crit.).

Aramides cajanea vanrossemi Peters, Bds. World, 2, p. 174, 1934 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 159, 1938—Barra de Santiago, El Salvador.

Range.—Pacific coast of western Salvador, Guatemala, and Chiapas, Mexico.

****Aramides cajanea pacifica* Miller and Griscom.¹ PACIFIC WOOD RAIL.**

Aramides plumbeicollis pacifica Miller and Griscom, Amer. Mus. Nov., 25, p. 11, 1921—Tipitapa, Lake Managua, Nicaragua (type in the American Museum of Natural History, New York, examined).

Aramides cayanaensis (not *Fulica cayennensis* Gmelin) Moore, Proc. Zool. Soc. Lond., 27, p. 64, 1859—Omoa, Honduras.

Aramides cayennensis Sclater and Salvin, Ibis, 1859, p. 230—Omoa (ex Moore); idem, Proc. Zool. Soc. Lond., 1867, p. 280—Blewfields River, Nicaragua; Ridgway, Proc. U. S. Nat. Mus., 10, p. 594, 1888—Segovia River, Honduras.

[*Aramides cayanae*] subsp. γ . *A. plumbeicollis* Sharpe, Cat. Bds. Brit. Mus., 23, p. 332, 1894—Nicaragua (Rio Escondido, Chontales).

Aramides ruficollis (not *Fulica ruficollis* Gmelin) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 185, 1865—Greytown, Nicaragua.

¹ *Aramides cajanea pacifica* Miller and Griscom: Nearest to *A. c. plumbeicollis*, but anterior mantle much less rufescent and the posterior mantle and scapulars a duller, more grayish olive.

The other characters given in the original description do not seem to be good, when a series is examined. The coloration of the primaries and the presence or lack of buffy feathers surrounding the abdominal patch appear to be individual characteristics. In fact, some Costa Rican specimens of *plumbeicollis* show traces of light buffy feathers on the abdomen. As to the narrow black barring of the axillars and under wing coverts, this also seems to be quite variable, a specimen from Sábalos, Nicaragua, agreeing very closely with the type of *pacifica*, while another specimen from Matagalpa, which is nearer the type locality, has very broad black barring.

Additional material examined.—Nicaragua: Los Sábalos, San Juan River, 1; Rio Coco, 5; Jalapa, 2; Matagalpa, 1; Tipitapa, Managua, 1.

Aramides albiventris (not of Lawrence) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 477—part, Honduras (Omoa); idem, l.c., 1870, p. 838—[San Pedro], Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 319, 1903—part, Honduras (Omoa, San Pedro).

Aramides plumbeicollis (not of Zeledón) Richmond, Proc. U. S. Nat. Mus., 16, p. 528, 1893—Rio Escondido, Nicaragua (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 320, 1903—part, Honduras (Segovia River) and Nicaragua (Blewfields, Greytown, Escondido River); Rendahl, Ark. Zool., 12, No. 8, p. 10, 1919—San Juan del Norte, Nicaragua.

Aramides albiventris plumbeicollis Bangs, Amer. Natur., 41, p. 186, 1907—part, Nicaragua to the Segovia River, Honduras (monog.).

Aramides plumbeicollis plumbeicollis Miller and Griscom, Amer. Mus. Nov., 25, p. 11 (in text), 1921—Honduras (Roman River) and Nicaragua (Rio Coco, Jalapa, Matagalpa, Los Sábalos).

Aramides cayennensis subsp. Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 303, 1932—Honduras (Segovia River, San Pedro).

Aramides cajanea pacifica Peters, Bds. World, 2, p. 175, 1934—Lake Managua.

Range.—Caribbean drainage of Honduras and all of Nicaragua.¹

Field Museum Collection.—3: Honduras (Lake Ticamaya, 2; Trujillo, Colon, 1).

Conover Collection.—6: Honduras (El Boqueron, Catacamas, Olancho, 6).

****Aramides cajanea plumbeicollis* Zeledón.² PLUMBEOUS-NECKED WOOD RAIL.**

Aramides plumbeicollis Zeledón,³ Anal. Mus. Nac. Costa Rica, 2, p. 3, 1888—Jiménez, Costa Rica (type now in U. S. National Museum; cf. Bangs, Amer. Natur., 41, p. 186, 1907); Underwood, Ibis, 1896, p. 450—Miravalles, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 320, 1903—part, Costa Rica (part, Carrillo, Jiménez).

Ortygarchus cayennensis (not *Fulica cayennensis* Gmelin) Cabanis, Journ. Orn., 17, p. 212, 1869—Costa Rica (crit.).

¹ No specimens from southern Nicaragua have been examined. They may prove to be referable to *plumbeicollis* instead of to *pacifica*.

² *Aramides cajanea plumbeicollis* Zeledón is the connecting link to the South American *A. c. cajanea*, combining the intensely colored breast of the latter with the bright rufous nuchal patch of the northern races, while the narrow buffy margin to the black abdominal area places it in an intermediate position between the two sections. Differs also from *cajanea* by having the anterior mantle bright rufescent, in sharp contrast to the olive posterior mantle and scapulars.

The two specimens from Miravalles, Guanacaste, have the mantle somewhat less rufescent than birds from eastern Costa Rica, in this respect tending toward *pacifica*.

³ First published as a nomen nudum by Zeledón (Anal. Mus. Nac. Costa Rica, 1, p. 131, 1887).

Aramides albiventris (not of Lawrence) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 319, 1903—part, Costa Rica.

Aramides cayennensis Frantzius, Journ. Orn., 17, p. 375, 1869—Costa Rica.

Aramides albiventris plumbeicollis Bangs, Amer. Natur., 41, p. 186, 1907—eastern Costa Rica (Jiménez, Cariblanco de Sarapiquí, Carrillo) (monog.); Carriker, Ann. Carnegie Mus., 6, p. 409, 1910—eastern Costa Rica (El Hogar, Guápiles, Volcan de Turrialba); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 260, 1910—Guayábo, Costa Rica.

Aramides cajanea plumbeicollis Peters, Bds. World, 2, p. 175, 1934 north-eastern Costa Rica.

Range.—Costa Rica (excepting the southern section).

Field Museum Collection. 2: Costa Rica (Guayábo, 1; “El Pózo de Terraba,”¹ 1).

Conover Collection.—5: Costa Rica (La Iberia Farm, Volcan Turrialba, 1; Quebrada Azul, Alajuéla, 2; Miravalles, Guanacaste, 2).

****Aramides cajanea cajanea* (P. L. S. Müller). CAYENNE WOOD RAIL.**

Fulica cajanea P. L. S. Müller, Natursyst., Suppl., p. 119, 1776—based on “Poule d’eau, de Cayenne” Daubenton, Pl. Enl., pl. 352; Cayenne.

Fulica major Boddaert, Tabl. Pl. Enl., p. 21, Dec., 1783—based on Daubenton, Pl. Enl., pl. 352; Cayenne.

Fulica cayennensis Gmelin, Syst. Nat., 1, (2), p. 700, 1789—based on Buffon and Daubenton, Pl. Enl., pl. 352; Cayenne.

Fulica ruficollis Gmelin, Syst. Nat., 1, (2), p. 700, 1789—based on “Black-bellied Gallinule” Latham, Gen. Syn. Av., 3, (1), p. 253, 1785; Cayenne.²

Rallus chiricote Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 551, 1819—based on “Chiricóte” Azara, No. 368; Paraguay.

Rallus maximus Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 555, 1819—principally based on “Cayenne Gallinule” Latham, Gen. Syn. Bds., 3, (1), p. 252, 1785; Guiana and Cayenne (=young).

Gallinula ruficeps Spix, Av. Spec. Nov. Bras., 2, p. 74, pl. 96, 1825—Rio de Janeiro, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 712, 1906).

Rallus hydrogallina Lesson, Traité d’Orn., livr. 7, p. 536, April, 1831—new name for *Fulica cayennensis* Gmelin; part, adult, Cayenne.

¹ We cannot help questioning the correctness of this locality.

² The Vienna Museum has a Cayenne specimen acquired from the Leverian Museum, which, according to Pelzelin (Orn. Bras., 3, p. 316, 1870), is probably the original of Latham’s and Gmelin’s descriptions. It agrees very well with their account except that neither of these authors mentions the gray area on the fore-neck, and differs from the ordinary color-type of *cajanea* by decidedly darker, deep tawny instead of ochraceous-tawny, under parts. We have examined similar individuals from Costa Rica (Golfo Dulce), Borba (Rio Madeira), Rio Curicuriarf (on the Rio Negro, above Barcellos), and Pará (type of *A. c. grahami*), but as they are associated with normally colored birds, we cannot see in them anything but individual variants.

- Gallinula cayennensis* Wied, Beitr. Naturg. Bras., 4, (2), p. 798, 1833—Brazil.
- Ortygarchus cayennensis* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 759, 1849—British Guiana; Heine and Reichenow, Nomencl. Mus. Hein., p. 320, 1890—Brazil, Santa Marta, Puerto Cabello, and Paraguay.
- Aramides cayennensis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 384, 1856—Lagõa Santa, Minas Geraes; Sclater, Proc. Zool. Soc. Lond., 24, p. 143, 1856—on the banks of the Rio David, Panama; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 196—Turbo, Colombia; Salvin, Proc. Zool. Soc. Lond., 1867, p. 161—David, Panama; Sclater and Salvin, l.c., 1868, p. 447—Panama to Paraguay (monog.); iidem, l.c., 1868, p. 629—San Esteban, Venezuela; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 143, 1868—Santa Ana [de Escazú], Costa Rica; Pelzeln, Orn. Bras., 3, p. 315, 1870—Paraná (Rio do Boraxudo, Paranaguá), Goyás (Rio Araguay), Matto Grosso (Cuyabá, Villa Bella), Barra do Rio Negro, and Cajútuba, Pará, Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 44—Lagõa dos Pitos and Sumidouro, near Lagõa Santa, Minas Geraes; Pelzeln, Ibis, 1873, p. 122—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 308—lower Ucayali, Peru; Taczanowski, l.c., 1874, p. 558—Amable Maria, Peru; Sclater and Salvin, l.c., 1879, p. 545—Remedios, Antioquia, Colombia; Forbes, Ibis, 1881, p. 358—Quipapá, Pernambuco; Berlepsch, l.c., 1884, p. 440—Angostura, Orinoco, Venezuela; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 180, 1885—Taquara, Rio Grande do Sul; Salvin, Ibis, 1886, p. 176—Bartica Grove and Camacusa, British Guiana; Taczanowski, Orn. Pér., 3, p. 318, 1886—Peru (lower Ucayali, Amable Maria, Yurimaguas); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 131, 1887—Alajuéla, Costa Rica; Berlepsch, Journ. Orn., 35, p. 35, 1887—Rio Pilcomayo; Chapman and Riker, Auk, 8, p. 163, 1891—Santarém, Rio Tapajóz, Brazil; Richmond, Proc. U. S. Nat. Mus., 16, p. 528, 1893—Talamanca and Pacific side of Costa Rica; Cherrie, Anal. Inst. Fis.-Geogr. Mus. Nac. Costa Rica, 4, p. 147, 1893—Térraba and Buenos Aires, Costa Rica; Allen, Bull. Amer. Mus. N. H., 5, p. 150, 1893—Chapada, Matto Grosso; Chapman, l.c., 6, p. 79, 1894—Princetown, Trinidad.
- Aramides ruficollis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 179, 1865—David, Chiriquí; Pelzeln, Orn. Bras., 3, p. 316, 1870—Cayenne, Borba (Rio Madeira), and Rio Curicuriari (Rio Negro), Brazil.
- Aramides* sp. Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 200—lower Ucayali, Peru.
- Aramides mangle* (not *Gallinula mangle* Spix) Allen, Bull. Essex Inst., 8, p. 82, 1876—Santarém, Rio Tapajóz, Brazil.
- Aramides chiricote* Hartlaub, Syst. Ind. Azara, p. 23, 1847—Paraguay; Léotaud, Ois. Trinidad, p. 496, 1866—Trinidad; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 24, 1895—Colonia Risso, Paraguay; idem, l.c., 12, No. 292, p. 34, 1897—San Lorenzo, Jujuy; idem and Festa, l.c., 14, No. 339, p. 12, 1899—Laguna de Pita, Darien; Lönnberg, Ibis, 1903, p. 444—Laguna del Sauzal, near Quinta, Jujuy; Goeldi, l.c., 1903, p. 500—Rio Capim, Pará; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 318, 1903—Costa Rica (Pacific slope, Talamanca, Santa Ana) and Panama (David, Lion Hill, Laguna de Pita); Bruch, Rev. Mus. La Plata, 11,

- p. 249, 1904—Oran, Salta; Hagmann, Zool. Jahrb. (Syst.), 26, p. 42, 1907—Mexiana Island, Brazil; Hartert and Venturi, Nov. Zool., 16, p. 257, 1909—Argentine Chaco; Chubb, Ibis, 1910, p. 65—Sapucay, Paraguay; Grant, l.c., 1911, p. 462—Colonia Riso, Paraguay, and Pão de Azucar, Matto Grosso; Dabbene, Bol. Soc. Physis, 1, p. 255, 1913—Jujuy (San Lorenzo), Salta (Orán), Chaco Austral, and Misiones (Santa Ana); idem, El Hornero, 1, p. 33, 1917—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 11, 1920—Canelones, Uruguay; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 600, 1924—Isla Martín García, Buenos Aires.
- Aramides cayanae* Sharpe, Cat. Bds. Brit. Mus., 23, pp. 57, 332, 1894—Colombia (Remedios), Surinam (Maroni River), British Guiana (Bartica Grove), and Brazil (Rio do Boraxudo); Ihering, Anuario Est. Rio Grande do Sul, 16, p. 148, 1899—Taquara do Mundo Novo and Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 415, 1899—São Paulo; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 95, 1910—below Colonia Floriano and Caissara, Rio Parnahyba, Piauhý.
- Aramides cajanus* Allen, Bull. Amer. Mus. N. H., 13, p. 125, 1900—Minca, Santa Marta, Colombia.
- Aramides cajanea* Berlepsch and Hartert, Nov. Zool., 9, p. 128, 1902—Altargracia and Quiribana de Caicara, Orinoco, Venezuela; André, Natur. Guianas, p. 217, 1904—Caura River, above Achaba, Venezuela; Hellmayr, Nov. Zool., 13, p. 52, 1906—Caroni Swamp and Savannah Grande, Trinidad; idem, l.c., pp. 90, 412, 1907—Teffé, Rio Solimões, and Humaytá, Rio Madeira; Ihering, Cat. Faun. Braz., 1, p. 28, 1907—São Paulo (Franca, Barretos, Itapura, Ubatuba) and Espirito Santo; Bangs, Amer. Natur., 41, p. 180, 1907 (monog.); idem, Auk, 24, p. 291, 1907—Boruca, Costa Rica; Berlepsch, Nov. Zool., 15, p. 299, 1908—Cayenne; Hellmayr, l.c., 17, p. 421, 1910—Allianca, Rio Madeira; Carriker, Ann. Carnegie Mus., 6, p. 408, 1910—Costa Rica (El General de Terraba, Pózo Azúl, Buenos Aires, Rio Sicsola); Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 191, 1913—Cariquito, Paria Peninsula, and Caño Vagre, Orinoco Delta, Venezuela; Sneath, Bol. Mus. Goeldi, 8, p. 71, 1914—Pará, Marajó (Pacoval), and Mexiana; Chubb, Bds. Brit. Guiana, 1, p. 68, 1916—Ituribisci River, Bartica, Abary River, Anarika River, and Camacusa; Cherrie, Sci. Bull. Mus. Brookl. Inst., 2, p. 367, 1916—along the Orinoco River; Beebe, Trop. Wild Life, 1, p. 127, 1917—Bartica, British Guiana; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 243, 1918—Chagres River, Gatún, and Toro Point, Panama; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 39, 1922—Rio Guachi, Empelado Savanna, and Encontrados, Zulía, Venezuela (crit.).
- [*Aramides cayanae*] subsp. *a. Aramides chircote* Sharpe, Cat. Bds. Brit. Mus., 23, p. 58, 1894—Brazil (Bahia, Pará, Chapada), Peru (Iquitos), Colombia, and Panama (Lion Hill, Veragua).
- Aramides cayanea chircote* Bangs, Proc. New Engl. Zool. Cl., 2, p. 14, 1900—Loma del León, Panama; idem, Auk, 18, p. 358, 1901—Divalá, Chiriquí.
- Aramides cajanea cajanea* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 97, 122, 1912—Rio Capim and Mexiana, Brazil; Chapman, Bull. Amer. Mus. N. H., 36, p. 217, 1917—Rio Atrato, Salaquí,

- Rio Frio (Cauca), Honda, Buenavista, and Florencia, Colombia; Bangs and Penard, *Bull. Mus. Comp. Zool.*, **62**, p. 41, 1918—Paramaribo, Surinam; Chubb, *Ibis*, 1919, p. 52—Guianas and Venezuela (crit.); Bangs and Barbour, *Bull. Mus. Comp. Zool.*, **65**, p. 196, 1922—Jesuito, Darien, Panama (crit.); Chapman, *Bull. Amer. Mus. N. H.*, **55**, p. 176, 1926—Rio Suno, eastern Ecuador; Kennard and Peters, *Proc. Bost. Soc. N. H.*, **38**, p. 447, 1928—Chiriquí Creek, Panama (crit.); Stone, *Proc. Acad. Nat. Sci. Phila.*, **80**, p. 151, 1928—Pará; Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, **12**, p. 481, 1929—Maranhão (Bõa Vista; Codó, Cocos) and Ceará (Juá, near Iguatú); Griscom, *Bull. Mus. Comp. Zool.*, **69**, p. 154, 1929—Cana, Darien; Peters, *l.c.*, **71**, p. 301, 1931—Almirante Bay, Panama; Griscom, *l.c.*, **72**, p. 321, 1932—Permé, Panama; Pinto, *Rev. Mus. Paul.*, **17**, (2), p. 801, 1932—Rio Paraná, São Paulo; Peters, *Bds. World*, **2**, p. 175, 1934 (range); Roberts, *Trop. Agric.*, **11**, p. 90, 1934—Trinidad; Belcher and Smooker, *Ibis*, 1935, p. 282—Trinidad; Griscom, *Bull. Mus. Comp. Zool.*, **78**, p. 304, 1935—Panama; Pinto, *Rev. Mus. Paul.*, **19**, p. 72, 1935—Bahia (Rio Aratuhype, Rio Gongogy, Corupéba, Rio Jucurucú); *idem*, *l.c.*, **20**, p. 40, 1936—Rio das Almas, Goyáz.
- Aramides cajaneus cajaneus* Darlington, *Bull. Mus. Comp. Zool.*, **71**, p. 371, 1931—Aracataca to Santa Marta, Colombia.
- Aramides cajanea venezuelensis* Cory, *Field Mus. Nat. Hist., Orn. Ser.*, **1**, p. 296, 1917—Encontrados, Zulía, Venezuela (type in Field Museum of Natural History).
- Aramides cajanea peruviana* Cory, *Field Mus. Nat. Hist., Orn. Ser.*, **1**, p. 296, 1917—Moyobamba, Peru (type in Field Museum of Natural History).
- Aramides cayanea chiricote* Berlepsch and Stolzmann, *Proc. Zool. Soc. Lond.*, 1902, (2), p. 49—La Merced, Chanchamayo, Peru; Sztolcman, *Ann. Zool. Mus. Pol. Hist. Nat.*, **5**, p. 118, 1906—Porto Mendes, Rio Paraná, Paraná.
- Aramides cajanea chiricote* Ihering, *Cat. Faun. Braz.*, **1**, p. 28, 1907 (range); Dabbene, *Anal. Mus. Nac. Buenos Aires*, **18**, p. 196, 1910 (range in Argentina); Bertoni, *Anal. Soc. Cient. Arg.*, **75**, p. 69, 1913—Misiones; *idem*, *Faun. Parag.*, p. 37, 1914—Paraguay; Chubb, *Ibis*, 1919, p. 53—Charuplaya, Bolivia (crit., range); Chapman, *Bull. U. S. Nat. Mus.*, **117**, p. 48, 1921—Rio Comerciato, Urubamba, Peru; Todd and Carriker, *Ann. Carnegie Mus.*, **14**, p. 177, 1922—Mamatoco, La Tigrera, Trojas de Cataca, and Fundación, Colombia; Wetmore, *Bull. U. S. Nat. Mus.*, **133**, p. 125, 1926—Paraguay (Rio Paraguay) and Uruguay (La Paloma, near Rocha; San Vicente; Arroyo Sarandí; Rio Cebollati below Lazcano); Naumburg, *Bull. Amer. Mus. N. H.*, **60**, p. 71, 1930—Urucúm, Matto Grosso; Stone and Roberts, *Proc. Acad. Nat. Sci. Phila.*, **86**, p. 374, 1934—Descalvados, Matto Grosso.
- Aramides cajanea salmoni* Chubb, *Bull. Brit. Orn. Cl.*, **38**, p. 48, 1918—Remedios, Antioquia, Colombia (type in British Museum); *idem*, *Ibis*, 1919, p. 53—western Venezuela (Mérida) and Colombia to Panama.
- Aramides cajanea grahami* Chubb, *Ibis*, (11), **1**, p. 53, 1919—Pará, Brazil (type in British Museum examined).

Range.—Greater part of tropical America from southern Costa Rica¹ through Panama to Colombia, Venezuela, Trinidad, the Guianas, and south through Brazil, eastern Ecuador (Rio Suno), eastern Peru, and Bolivia (Charuplaya) to Uruguay, Paraguay, and northern Argentina (Jujuy, Salta, Chaco, and Isla Martín García, Buenos Aires).²

Field Museum Collection.—15: Costa Rica (Buenos Aires, 2; El Pózo de Térraba, 1); Colombia (unspecified, 1); Venezuela (Empalado Savanna, 1; Encontrados, Zulía, 1); British Guiana (Berbice, 1; Georgetown, 1; Rockstone, Essequibo River, 1); Brazil (Descalvados, 1; Juá, Ceará, 1; São Marcello, Bahia, 1; Gahiba Mirim, 1); Uruguay (Minas, Polanco, 1); Peru (Moyobamba, 1).

Conover Collection.—61: Costa Rica (Puerto Jiménez, Oso Peninsula, 1); Panama, Darien (Bocas del Toro, 1; Port Obaldia, 7; Permé, 3); Colombia (Cali, 1; Remedios, Antioquia, 1); Venezuela (Rio Guachí, Zulía, 2); Ecuador (Concepción, 1; Raya-Yaco, 1); British Guiana (Rockstone, Essequibo River, 2); Brazil (Bõa Vista, Maranhão, 1; Codó, Cocos, Maranhão, 1; Murutucú, Pará, 1; Tauary, Rio Tapajóz, 3; Boim, Rio Tapajóz, 1; Santarem, 2; Pinhel, Rio Tapajóz, 2; Lago Cuipeua, near Obidos, 6; Ipomonga, Rio Capim, 1; Serraria Cabral, Rio Acará, 2; Buenos Aires, Rio Acará, 1; Canutama, Rio Purús, 1; Labrea, Rio Purús, 1; Rio Manacapurú, Amazonas, 2; Cavalcanti, Rio São Miguel, Goyáz, 3); Paraguay (Villa Rica, 5; Santa Barbara, 1; Itapé, 1; Horqueta, 3); Argentina (Rio Lavallen, Jujuy, 2; Rio Bermejo, Salta, 1).

***Aramides cajanea latens* Bangs and Penard.³ SAN MIGUEL WOOD RAIL.**

¹ Specimens from southwestern Costa Rica (Térraba Valley and Rio Nueve, near Puerto Jiménez, Golfo Dulce) are unquestionably *cajanea*, one from the last-named locality representing the dark-bellied variation *ruficollis*.

² Subdivision of this wide-ranging form seems to be impossible in view of the amount of individual and seasonal variation noticeable in the large series examined. Birds from Panama, Colombia, and Venezuela (*venezuelensis*=*salmoni*) are in no wise distinguishable from Guianan specimens, as has already been stated by Bangs, Peters, Osgood and Conover. The type of *A. c. peruviana* also can be matched by individuals from other localities. The only uncertainty exists about the possible distinctness of the inhabitants of extreme southern Brazil, Paraguay, and Argentina, which are sometimes of rather dull grayish green coloration above, as has been remarked by Hellmayr and Bangs. This distinction, however, holds only in a certain percentage of specimens, and until a fuller series becomes available, *chiricote* may provisionally be included in synonymy.

Nearly eighty specimens from the entire range examined.

³ *Aramides cajanea latens* Bangs and Penard: Very similar to *A. c. cajanea*, but slightly smaller and paler throughout, especially on the under parts. Wing, 163–170; tail, 58–64; bill, 52–53.

Aramides cajanea latens Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 41, 1918—San Miguel Island, Bay of Panama (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 168, 1930); Peters, Bds. World, 2, p. 175, 1934—San Miguel Island; Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Pearl Islands.

Aramides cajanea chiricote (not *Rallus chiricote* Vieillot) Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 145, 1905—San Miguel Island.

Aramides cajanea (not *Fulica cajanea* P. L. S. Müller) Rendahl, Ark. Zool., 13, No. 4, p. 22, 1920—Viveros Island.

Range.—San Miguel and Viveros Islands, Pearl Islands, Bay of Panama.

****Aramides wolfi* Berlepsch and Taczanowski.¹ WOLF'S WOOD RAIL.**

Aramides wolfi Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 576—Chimbo, Ecuador (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 102, 1927); Sharpe, Cat. Bds. Brit. Mus., 23, p. 55, 1894—Balzar, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 40, 1900—Rio Peripa, Ecuador (crit.); Hartert, Nov. Zool., 9, p. 604, 1902—Pambilár and Carondelet, Prov. Esmeraldas, Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1208—Nóvita, Chocó, Colombia (crit.); Chubb, Ibis, 1919, p. 51—Mindo, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 175, 1926—below Mindo, Manglar Alto, Rio del Oro, Naránjo, and La Chonta, Ecuador; Peters, Bds. World, 2, p. 175, 1934 (range).

Range.—Humid tropical zone of western Ecuador and western Colombia (Nóvita, Chocó).

Field Museum Collection.—1: Ecuador (Carondelet, 1).

Conover Collection.—3: Ecuador (Santo Domingo, 1; Puente de Chimbo, 1; Rio Blanco, Esmeraldas, 1).

***Aramides gutturalis* Sharpe.² RED-THROATED WOOD RAIL.**

Aramides gutturalis Sharpe, Cat. Bds. Brit. Mus., 23, p. 57, pl. 5, 1894—South America (type in British Museum); Peters, Bds. World, 2, p. 175, 1935 (crit.).

Aramides ruficollis (not *Fulica ruficollis* Gmelin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 448—"Lima" (crit.).

¹ *Aramides wolfi* Berlepsch and Taczanowski, a strongly marked form, bears some likeness to *A. mangle*. It is, however, hard to believe that this superficial similarity denotes genetic relationship. As intimated by Chapman, *A. wolfi*, in spite of its striking characters, may after all prove to be akin to *A. cajanea*, which it evidently replaces on the Pacific coast of northwestern South America.

Additional material examined.—Colombia: Nóvita, Chocó, 1.—Ecuador, Prov. Esmeraldas: Carondelet, 2; Bulún, 3.

² *Aramides gutturalis* Sharpe, known only from a single specimen of doubtful origin, seems to be related to *A. wolfi*.

Range.—Unknown (the unique type is supposed to have come from Lima).

****Aramides ypecaha* (Vieillot). YPECAHA WOOD RAIL.**

Rallus ypecaha Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 568, 1819—based on “Ypacahá” Azara, No. 367; Paraguay and Buenos Aires; Gould, in Darwin, Zool. Voy. Beagle, 3, Birds, p. 133, 1841—Buenos Aires.

Crex melampyga Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 79, 1823—based on “Ypacahá” Azara, No. 367.

Gallinula gigas Spix, Av. Spec. Nov. Bras., 2, p. 75, pl. 99, 1825—Contendas, Minas Geraes (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 714, 1906).

Aramides gigas Burmeister, Syst. Uebers. Th. Bras., 3, p. 383, 1856—Minas Geraes; idem, Journ. Orn., 8, p. 261, 1860—Rio Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 504, 1861—near Paraná, Entre Ríos; Schlegel, Mus. Pays-Bas, Ralli, p. 14, 1865—Brazil; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 96, 1910—Bahia (island in the Rio São Francisco near Sambaiba) and Piauhý (Parnaguá), Brazil.

Aramus gigas Doering, Period. Zool. Arg., 1, p. 256, 1874—Barrancas, Rio Guayquiraró, Corrientes.

Aramides ypecaha Hartlaub, Syst. Ind. Azara, p. 23, 1847—Paraguay (ex Azara); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 144—Conchitas, Buenos Aires; Pelzeln, Orn. Bras., 3, p. 316 (note 2), 1870—Buenos Aires; Durnford, Ibis, 1877, p. 194—Baradero, Buenos Aires; White, Proc. Zool. Soc. Lond., 1883, p. 433—La Plata, Buenos Aires; Barrows, Auk, 1, p. 276, 1884—Concepción del Uruguay, Entre Ríos; Berlepsch, Journ. Orn., 35, p. 34, 1887—Rio Pilcomayo; Dagleish, Proc. Roy. Phys. Soc. Edin., 10, p. 87, 1889—Est. Ytañú, Paraguay (nest and eggs); Sclater and Hudson, Arg. Orn., 2, p. 150, 1889—borders of the La Plata to 35° S. Lat. (habits); Kerr, Ibis, 1892, p. 148—Fortín Nueve, Rio Pilcomayo (habits); Aplin, Ibis, 1894, p. 204—Rio Perdido, Uruguay; Hussey, Auk, 33, p. 386, 1916—La Plata (habits); Wetmore, Bull. U. S. Nat. Mus., 133, p. 126, 1926—Uruguay (Lazcano), Chaco (Las Palmas), Formosa (Riacho Pilaga), Paraguay (Puerto Pinasco), and Buenos Aires (Lavalle); Friedmann, Bull. Mus. Comp. Zool., 68, p. 161, 1927—Bovril Islands, Santa Fé; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 481, 1929—Piauhý (ex Reiser); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 71, 1930—Lapango, Formosa; Peters, Bds. World, 2, p. 176, 1934 (range).

Aramides ypacaha Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 448 (monog.); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 45—Contendas, Minas Geraes (ex Spix); Sharpe, Cat. Bds. Brit. Mus., 23, p. 60, 1894—Conchitas, Buenos Aires; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 24, 1895—Paraguari, Paraguay; Kerr, Ibis, 1901, p. 234—Concepción and Chaco, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 29, 1907—Buenos Aires (range); Sordelli, Atti Soc. Ital. Sci. Nat., 47, p. 14, 1908—Est. Luis Chico, Buenos Aires; Hartert and Venturi, Nov. Zool., 16, p. 257, 1909—Buenos Aires (Barracas al Sud), Santa Fé (Mocoví), and Entre Ríos (La Soledad); Dabbene, Anal. Mus. Nac. Buenos Aires,

18, p. 196, 1910 (range in Argentina); Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Marelli, El Hornero, 1, p. 76, 1918—Curuzú Cuatiá, Corrientes; Tremoleras, l.c., 2, p. 12, 1920—Uruguay (Montevideo, Canelones, Colonia); Arribáizaga, l.c., 2, p. 90, 1920—Chaco; Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 161, 1923—Zelaya, Buenos Aires.

Aramides ipecaha Hudson, Proc. Zool. Soc. Lond., 1876, p. 105—Buenos Aires (habits).

Aramides ipacaha Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 600, 1924—Prov. Buenos Aires.

Aramides ypacaha (= *gigas*) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 230, 1924—Piauhy (Lagõa near Fazenda do São Antonio, Lake Parnaguá, Brejão).

Range.—Eastern Brazil, in states of Piauh, Bahia, and Minas Geraes (Contendas), and Paraguay, Uruguay, and northeastern Argentina, in provinces of Formosa, Chaco, Santa Fé, Corrientes, Entre Ríos, and Buenos Aires (south to about 36° S. lat.).¹

Field Museum Collection.—1: Uruguay (Arazati, San José, 1).

Conover Collection.—11: Paraguay (Villa Rica, 6; Horqueta, 4); Uruguay (Soriano, 1).

****Aramides saracura* (Spix). SARACURA WOOD RAIL.**

Gallinula saracura Spix, Av. Spec. Nov. Bras., 2, p. 78, pl. 98, 1825—Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 714, 1906).

Rallus nigricans (not of Vieillot, 1819) Bonaparte, Journ. Acad. Nat. Sci. Phila., 4, p. 386, May, 1825—South America (type received by Bonaparte from Paul Goddard, its present location unknown); Burmeister, Journ. Orn., 1, p. 176, 1853—Nova Friburgo, Rio (egg descr.).

Rallus melanurus Bonaparte, Journ. Acad. Nat. Sci. Phila., 5, (1), p. 139, November, 1825—new name for *Rallus nigricans* Bonaparte, 1825.

Rallus hydrogallina Lesson, Traité d'Orn., livr. 7, p. 536, April, 1831—part, "jeune âge," Brazil (cf. Pucheran, Rev. Mag. Zool., (2), 3, p. 569, 1851).

Gallinula plumbea (not of Vieillot, 1817) Wied, Beitr. Naturg. Bras., 4, (2), p. 795, 1833—southeastern Brazil.

¹ In spite of the apparently existing gap in distribution, we fail to perceive any noticeable difference between five Brazilian skins and a series from Argentina.

Schlegel (Mus. Pays-Bas, Ralli, p. 14, 1865) refers a specimen said to be from the island of St. Thomas to *A. ypacaha*. The description indicates quite a different bird. Selater and Salvin (Proc. Zool. Soc. Lond., 1868, p. 448) suggest it might be one of the Central American races allied to *A. cajanea albiventris*. The locality, anyhow, is erroneous, as no representative of the genus is found in the West Indies.

Additional material examined.—Brazil: Parnaguá, Piauh, 1; near Sambaiba, Rio São Francisco, Bahia, 3; Contendas, Minas Geraes, 1.—Argentina: Rio de Oro, Chaco Austral, 1; La Soledad, Entre Ríos, 1; Mocoví, Santa Fé, 2; Buenos Aires, 7.

Aramides plumbeus Hartlaub, Syst. Ind. Azara, p. 23, 1847—Paraguay (ex Azara, No. 369); Burmeister, Syst. Uebers. Th. Bras., 3, p. 383, 1856—Nova Friburgo, Rio; Schlegel, Mus. Pays-Bas, Ralli, p. 15, 1865—Brazil; Euler, Journ. Orn., 15, p. 418, 1867—Cantagallo, Rio (breeding habits, eggs).

Aramides saracura Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 449—Paraguay and southeastern Brazil (monog.); Pelzeln, Orn. Bras., 3, p. 316, 1870—Rio de Janeiro (Sapitiba) and São Paulo (Ypanemá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 44—Minas Geraes (Lagõa Santa) and Rio de Janeiro (Sumidouro); Hamilton, Ibis, 1871, p. 309—Itapetininga, São Paulo; Berlepsch, Journ. Orn., 22, p. 275, 1874—Blumenau, Santa Catharina; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 180, 1885—Taquara and Arroio Grande, Rio Grande do Sul; Sharpe, Cat. Bds. Brit. Mus., 23, p. 61, 1894—Minas Geraes (Santa Fé), Rio Grande do Sul (Pelotas), and São Paulo (Ypanemá); Ihering, Annuario Est. Rio Grande do Sul, 16, p. 148, 1899—Mundo Novo; idem, Rev. Mus. Paul., 3, p. 416, 1899—Tieté, São Paulo; idem, l.c., 4, p. 164, 1900—Nova Friburgo and Cantagallo, Rio de Janeiro; idem, Cat. Faun. Braz., 1, p. 29, 1907—São Paulo (Tieté, Conceição dos Guarulhos, Itararé, Alto da Serra); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 196, 1910—Misiones, Argentina; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 462, 492, 1912—Vera Guarany, Paraná; Dabbene, Bol. Soc. Physis, 1, p. 255, 1913—Santa Ana, Misiones; Bertoni, Anal. Soc. Scient. Arg., 75, p. 69, 1913—Alto Paraná; idem, Faun. Parag., p. 37, 1914—Alto Paraná, Paraguay; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 118, 1926—Vermelho, Paraná; Peters, Bds. World, 2, p. 176, 1934 (range).

Ortygarchus plumbeus Cabanis, Journ. Orn., 22, p. 231, 1874—Cantagallo, Rio de Janeiro.

Range.—Wooded region of southeastern Brazil, from Minas Geraes south to Rio Grande do Sul, and the adjacent districts of Argentina (Misiones) and Paraguay (Alto Paraná).¹

Field Museum Collection.—1: Brazil (Candido de Abreu, Paraná, 1).

Conover Collection.—5: Brazil (Rolante, Rio Grande do Sul, 1; Jaguarihyva, Paraná, 1); Argentina, Misiones (Santa Ana, 1; Gisela, 2).

**Aramides calopterus* Sclater and Salvin.² ECUADORIAN WOOD RAIL.

¹ The occurrence in Peru claimed by Tschudi, s. n. *Gallinula plumbea* (Arch. Naturg., 10, (1), p. 313; Faun. Peru., Aves, p. 302, 1846), upon which *Aramides saracura* Taczanowski (Orn. Pér., 3, p. 319, 1886) is based, has not been confirmed, and deserves no credit.

Additional material examined.—Brazil: Ypanemá, São Paulo, 4; Mattodentro, São Paulo, 1; Taquara, Rio Grande do Sul, 3.—“Brazil,” 1.

² *Aramides calopterus* Sclater and Salvin, though related to *A. saracura*, is a very distinct species.

Two additional adults from Rio Suno examined.

Aramides calopterus Sclater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 439, pl. 28—Sarayacu, Ecuador (type in Salvin-Godman Collection, now in British Museum); Peters, Bds. World, 2, p. 176, 1934 (range).

Aramides callopterus Sharpe, Cat. Bds. Brit. Mus., 23, p. 62, 1894—Sarayacu; Chapman, Bull. Amer. Mus. N. H., 55, p. 176, 1926—Rio Suno and below San José, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 355, 1927—Rio Suno.

Range.—Tropical zone of eastern Ecuador.

Conover Collection.—7: Ecuador (Concepción, 3; Guamayacu, 1; Sara-Yaco, Rio Bobonaza, 2; Rio Tigre, 1).

Genus CREX Bechstein

Crex Bechstein, Orn. Taschenb. Deutschl., 2, p. 336, 1803—type, by monotypy, *Crex pratensis* Bechstein = *Rallus crex* Linnaeus.

Crex crex (Linnaeus). CORN CRAKE.

Rallus Crex Linnaeus, Syst. Nat., 10th ed., 1, p. 153, 1758—Europe, restricted type locality, Sweden.

Crex pratensis Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 381, 1874 (monog.); Winge, Medd. Grønl., 21, p. 145, 1899—Greenland (Godthaab, Egedesminde, Sukkertoppen, Julianehaab); Helms, Vidensk. Medd. Naturhist. Foren., 56, p. 98, 1904—Angmagsalik, Greenland (Sept. 8, 1901); Helms and Schiøler, Dansk Orn. Foren. Tidskr., 11, p. 172, 1917—Angmagsalik (Oct. 25, 1912).

Crex crex Helms, Medd. Grønl., 58, p. 241, 1926—Angmagsalik (Sept. 19, 1901; Oct. 25, 1912); Bradlee, Mowbray, and Eaton, Proc. Bost. Soc. N. H., 39, p. 313, 1931—Bermudas (Oct. 25, 1847).

Range.—Breeds in Europe and Asia, winters chiefly in northern and tropical Africa; accidental in Greenland (various records), Baffin Island, Nova Scotia, eastern United States (various records from Maine to Maryland), and in Bermuda (Oct. 25, 1847).

Genus ANUROLIMNAS Sharpe

Anurolimnas Sharpe, Bull. Brit. Orn. Cl., 1, p. xxviii, 1893—type, by orig. desig., *Porzana castaneiceps* Sclater and Salvin.

**Anurolimnas castaneiceps* (Sclater and Salvin).¹ CHESTNUT-HEADED CRAKE.

Porzana castaneiceps Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 453—Rio Napo, eastern Ecuador (type in British Museum); idem, Exot.

¹ *Micropygia verreauxi* Bonaparte (Compt. Rend. Acad. Sci. Paris, 43, p. 599, 1856) is stated by Salvin (Ibis, 1874, p. 320) and Stone (Proc. Acad. Nat. Sci. Phila., 51, p. 12, 1899) to be the same as *Anurolimnas castaneiceps*, but its characterization consisting of the word "major" does not take it out of the class of nomina nuda.

Orn., p. 155, pl. 78, 1869—Rio Napo; Goodfellow, Ibis, 1902, p. 230—Archidona, Ecuador.

Anurolimnas castaneiceps Sharpe, Cat. Bds. Brit. Mus., 23, p. 88, 1894—Rio Napo and Sarayacu, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 217, 1917—La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 177, 1926—Rio Suno, Zamora, and below San José, Ecuador; Peters, Bds. World, 2, p. 181, 1934 (range).

Range.—Tropical zone of southeastern Colombia (La Morelia, Caquetá) and eastern Ecuador.¹

Conover Collection.—10: Ecuador (Sara-Yaco, Rio Bobonaza, 5; Raya-Yaco, 1; Hd. Rio Tigre, Napo-Pastaza, 3; Concepción, 1).

Genus PORZANA Vieillot

Porzana Vieillot, Anal. Nouv. Orn. Elém., p. 61, April, 1816—type, by monotypy (and tautonymy), “Marouette” Buffon = *Rallus porzana* Linnaeus.

Mustelirallus Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 599, 1856—type, by monotypy, *Rallus albicollis* Vieillot.

Galeolimnas Heine, in Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 320, 1890—new name for *Mustelirallus* Bonaparte.

Hapalocrex Ridgway, Smiths. Misc. Coll., 72, No. 4, p. 3, 1920—type, by orig. desig., *Rallus flaviventer* Boddaert.

Porzana porzana (Linnaeus). SPOTTED RAIL.

Rallus porzana Linnaeus, Syst. Nat., 12th ed., 1, p. 262, 1766—based principally on “Le petit Rasle d'eau ou la Marouette” Brisson, Orn., 5, p. 155, pl. 13, fig. 1; Europe, restricted type locality, France (ex Brisson).

Porzana maruetta Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 368, 1874 (monog.); Winge, Medd. Grøn., 21, p. 145, 1899—Greenland (Godthaab, Sept. 28, 1841; Nanortalik; Julianehaab); Peters, Bds. World, 2, p. 184, 1934 (range).

Range.—Breeds in Europe and western Asia, from the British Isles and Norway to western Siberia and south to the islands in the Mediterranean and to northwestern Kashmir; winters in southern Europe, Africa, and India. Accidental in Greenland (Frederikshaab, Godthaab, Nanortalik, and Julianehaab).

**Porzana carolina* (Linnaeus). SORA RAIL.

Rallus carolinus Linnaeus, Syst. Nat., 10th ed., 1, p. 153, 1758—based on “The Little American Water Hen” Edwards, Nat. Hist. Bds., 3, p. 144, pl. 144, Hudson's Bay; and “Gallinula americana” Catesby, Nat. Hist. Carolina, 1, p. 70, pl. 70, Virginia.

¹ A single specimen from Colombia (La Morelia), according to Chapman, differs by slenderer, brownish flesh-color instead of black feet and tarsi.

Rallus virginianus Linnaeus, Syst. Nat., 12th ed., 1, p. 263, 1766—based on "Gallinula americana" Catesby, Nat. Hist. Carolina, 1, p. 70, pl. 70; Virginia.¹

Rallus stolidus Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 567, 1819—new name for *Rallus carolinus* Linnaeus.

Ortygometra carolina Léotaud, Ois. Trinidad, p. 493, 1866—Trinidad.

Porzana carolina Sc Slater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 450 (monog.); Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 370, 1874 (monog.); Taczanowski, Orn. Pér., 3, p. 320, 1886—Tumbez, Peru; Sharpe, Cat. Bds. Brit. Mus., 23, p. 97, 1894 (monog.); Winge, Medd. Grøn., 21, p. 146, 1899—Greenland (Sukkertoppen, Oct. 5, 1823; Umanak, Sept. 30, 1882; Frederikshaab); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 321, 1903 (range); Riley, in Shattuck, The Bahama Islands, p. 360, 1905—Bahamas (New Providence, Little Abaco, Andros, Cay Lobos, Cay Sal, Bird Rock); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 75, 1907—lakes Atitlan and Amatitlan, Guatemala; Carriker, Ann. Carnegie Mus., 6, p. 409, 1910—Costa Rica (San José, Alajuela, San Pedro, Turrúcares); Chubb, Bds. Brit. Guiana, 1, p. 71, 1916—Bartica Grove; Chapman, Bull. Amer. Mus. N. H., 36, p. 218, 1917—Bogotá Savanna, Colombia (Feb. 21, 1913); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 40, 1922—Venezuela (Rio Aurare, Zulia; Culata and Mérida, Mérida); Todd and Carriker, Ann. Carnegie Mus., 14, p. 179, 1922—Fundación, Santa Marta, Colombia; Chapman, Bull. Amer. Mus. N. H., 55, p. 177, 1926—Chone and Yaguarcocha, western Ecuador (Feb., Mar.); Bent, Bull. U. S. Nat. Mus., 135, p. 303, 1926 (habits, breeding and winter range); Grinnell, Univ. Calif. Pub. Zool., 32, p. 87, 1928—Lower California; Bradlee, Mowbray, and Eaton, Proc. Bost. Soc. N. H., 39, p. 312, 1931—Bermudas (transient); Peters, Bull.-Mus. Comp. Zool., 71, p. 301, 1931—Almirante and Changuinola, Panama; Darlington, l.c., p. 372, 1931—Ciénaga, Magdalena, Colombia; Griscom, l.c., 78, p. 304, 1935—Panama (winter); Peters, Bds. World, 2, p. 184, 1934 (range); Belcher and Smooker, Ibis, 1935, p. 283—Caroni, Trinidad.

Range.—Breeds in North America from central British Columbia, southern Mackenzie, Manitoba, lower St. Lawrence Valley, and Nova Scotia, south to northern Lower California, Utah, northern Missouri, southern Ohio, and Maryland; winters from California, Arizona, Texas, and Florida through Central America and the West Indies to northwestern Peru (Santa Lucia, Tumbez), Ecuador, Venezuela, Trinidad,² and British Guiana; occasional in Labrador and Newfoundland; accidental in Greenland (several records) and the British Isles.

¹ Cf. Stone, Auk, 47, p. 560, 1930.

² The eggs from the Caroni Marshes, Trinidad, ascribed to this species by Belcher and Smooker (Ibis, 1935, p. 283), must belong to some other rail, since the breeding of the Sora in that region is utterly excluded. The authors admit that they were unable to secure a bird.

Field Museum Collection.—80: Canada (Prince Edward Island, 1); Maine (Bar Harbor, 1); Massachusetts (Chatham, 3; Cambridge, 2); Connecticut (Hartford, 14); New York (Brockport, 1); Wisconsin (Beaver Dam, 6; Fox Lake, 3); Illinois (Chicago, 16; Fox Lake, 2; Lake George, 1; Beach, 1; Roby, 1; Lake Forest, 1; Worth, 2); Indiana (Bluffton, 1); Colorado (Fort Lyon, 2; Troublesome, 1); Florida (Palm Beach, 1; Pilot-town, 2; East Pass, 1); Louisiana (New Orleans, 1); Bahama Islands (Andros Island, 1; Abaco, 1); Cuba (Palacios, 1); Mexico (Jaral, Coahuila, 2; Yucatan, 1); Guatemala (Lake Amatitlan, 4); Venezuela (Rio Aurare, 1; Culata, 2; Mérida, 2; Maracay, Aragua, 1).

Conover Collection.—14: New York (Seneca County, 1; Suffolk County, 1); Indiana (Hessville, 1); Illinois (Wheaton, 3; Roby, 1); California (Newberry Springs, 1; Yermo, 1; Point Magie, 1; Corona, 1); Panama (Port Obaldia, Darien, 1); Ecuador (Quito, 2).

****Porzana albicollis albicollis* (Vieillot). WHITE-THROATED RAIL.**

Rallus albicollis Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 561, 1819—based on "Ypacahá aplomado y pardo" Azara, No. 374; Villa Curuguatí, Paraguay.

Crex mustelina Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 79, Sept., 1823—Brazil (type in Berlin Museum).

Crex gularis Jardine and Selby, Illust. Orn., 1, (3), pl. 39, 1828—"Brazils" (type in coll. of Dr. Such, present location unknown).

Ortygometra albicollis Hartlaub, Syst. Ind. Azara, p. 374, 1847—Paraguay (ex Azara, No. 374); Burmeister, Syst. Uebers. Th. Bras., 3, p. 387, 1856—southern Brazil, from São Paulo to "Montevideo," errore; Euler, Journ. Orn., 15, p. 419, 1867—Cantagallo (nesting habits).

Porzana albicollis Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 451—part, Paraguay and São Paulo; Pelzeln, Orn. Bras., 3, p. 316, 1870—São Paulo (Ypanemá, Irisanga); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 43—Nova Friburgo, Rio de Janeiro, and Lagõa Santa, Minas Geraes; Cabanis, Journ. Orn., 22, p. 231, 1874—Cantagallo, Rio de Janeiro; Sharpe, Cat. Bds. Brit. Mus., 23, p. 102, 1894—part, spec. b-l, Brazil (São Paulo; Santa Fé, Minas Geraes; Bahia; Pernambuco); Ihering, Rev. Mus. Paul., 3, p. 416, 1899—São Paulo (Piquete, Iguapé); idem, l.c., 4, p. 164, 1900—Nova Friburgo and Cantagallo, Rio; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 214, 1902—Famaillá, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—same locality; Ihering, Cat. Faun. Braz., 1, p. 30, 1907—São Paulo (Ypiranga, Piquete, Cachoeira, Avandhandava); Hartert and Venturi, Nov. Zool., 16, p. 258, 1909—San Felipe and Famaillá, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 196, 1910—Famaillá, Tucumán; idem, Bol. Soc. Physis, 1, p. 255, 1913—Tucumán; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Pinto, Rev. Mus. Paul., 19, p. 74, 1935—Madre de Deus and Corupéba, Bahia.

Porzana albicollis albicollis Peters, Bds. World, 2, p. 185, 1934 (range); Pinto, Rev. Mus. Paul., 20, p. 41, 1936—Rio das Almas, Goyáz.

Range.—Eastern Brazil, from Pernambuco and Bahia south through Minas Geraes, Rio de Janeiro, and Goyáz to São Paulo; Paraguay; eastern Bolivia; northwestern Argentina (Tucumán Province).¹

Conover Collection.—10: Bolivia (Buenavista, Santa Cruz, 1); Paraguay (Villa Rica, 4; Horqueta, 5).

****Porzana albicollis typhoea* Peters.² NORTHERN WHITE-THROATED RAIL.**

Porzana albicollis typhoea Peters, Proc. New Engl. Zool. Cl., 13, p. 66, 1932—Rio Frio, Santa Marta, Colombia (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, Bds. World, 2, p. 185, 1934—northern Colombia east to Trinidad and Guiana; Belcher and Smooker, Ibis, 1935, p. 284—Caroni Marshes and Nelson's Estate, Trinidad (nest and eggs descr.).

Crex mustelina (not of Lichtenstein) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 760, 1848 [=1849]—coast region.

Crex olivaceus (not *Rallus olivaceus* Vieillot)³ Taylor, Ibis, 1864, p. 96—Trinidad (spec. in British Museum examined).

Corethrura olivacea Léotaud, Ois. Trinidad, p. 499, 1866—Trinidad.

Porzana albicollis Schlegel, Mus. Pays-Bas, Ralli, p. 34, 1865—Surinam; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 451—part, Surinam, Cayenne, and Trinidad; Salvin, Ibis, 1886, p. 176—Roraima, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 23, p. 102, 1894—part, spec. n-p, Surinam (Maroni River) and British Guiana (Georgetown, Roraima); Berlepsch and Hartert, Nov. Zool., 9, p. 127, 1902—Quiribana de Caicara, Orinoco, Venezuela; Berlepsch, l.c., 15, p. 299, 1908—Cayenne; Penard, Vog. Guyana, 1, p. 206, 1908—Surinam; Chubb, Bds. Brit. Guiana, 1, p. 72, 1916—Ituribisci River, Bartica, Bonasika, Abary River, Essequibo, Roraima, Annai, and Georgetown; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 367, 1916—Quiribana de Caicara, Venezuela; Beebe, Trop.

¹ *Additional material examined*.—Brazil: Bahia, 2; Ypiranga, São Paulo, 1; Ypanemá, São Paulo, 1; Irisanga, São Paulo, 1.—Argentina, Tucumán: San Felipe, 3; Famaillá, 1.

² *Porzana albicollis typhoea* Peters: Similar to the nominate race, but decidedly smaller, edgings of upper parts paler, olivaceous rather than brownish, and under surface paler gray. Wing, 98–103 (against 108–114); bill, 26–28.

We have not seen any material from the type locality, but a single Venezuelan example agrees with others from Trinidad and the Guianas.

Additional material examined.—French Guiana: Cayenne, 1.—British Guiana: Roraima, 1.—Trinidad: unspecified, 1.—Venezuela: Quiribana de Caicara, Orinoco, 1.

³ *Rallus olivaceus* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 561, 1819—Saint-Domingue) certainly does not belong to the above species, the description of the under parts as “gris fauve,” as well as the measurements, being in utter disagreement with the bird's characters.

Wild Life, 1, pp. 127, 215, fig. 63, 1917—Bartica Grove, British Guiana (nest and eggs); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 41, 1918—Paramaribo, Surinam; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 40, 1922—near Encontrados, Catatumbo River, Zulia, Venezuela; Darlington, Bull. Mus. Comp. Zool., 71, p. 372, 1931—Rio Frio, Magdalena, Colombia; Roberts, Trop. Agric., 11, p. 90, 1934—Trinidad.

Range.—French, Dutch, and British Guiana; island of Trinidad; Venezuela (Quiribana de Caicara, Orinoco; Encontrados, Zulia); northern Colombia (Rio Frio, Magdalena).

Field Museum Collection.—1: Venezuela (Catatumbo, Zulia, 1).

***Porzana flaviventer gossii (Bonaparte).¹ GOSSE'S RAIL.**

Laterirallus gossii Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 599, Sept., 1856 based on *Rallus minutus* β . Gmelin (Syst. Nat., 1, (2), p. 719, 1789) and *Ortygometra minuta* Gosse (Bds. Jamaica, p. 372, 1847); Jamaica (type in British Museum).

Ortygometra minuta (not *Rallus minutus* Gmelin) Gosse, Illust. Bds. Jam., pl. 104, 1849—Jamaica.

Rallus minutus Lembeye, Av. Cuba, p. 109, 1850—Cuba.

Crex minuta Sclater, Proc. Zool. Soc. Lond., 1861, p. 81—Jamaica.

Porzana minuta March, Proc. Acad. Nat. Sci. Phila., 1864, p. 69—Jamaica.

Crybastus gossii Gundlach and Cabanis, Journ. Orn., 4, p. 428, 1856—Cuba; Gundlach, Repert. Fis.-Nat. Cuba, 1, p. 361, 1866—Cuba; idem, Journ. Orn., 23, p. 358, 1875—Cuba (habits).

Porzana flaviventris (not *Rallus flaviventer* Boddaert) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 455—part, Jamaica and Cuba; Cory, Auk, 5, p. 54, 1888—Cuba and Jamaica (descr.); idem, Bds. W. Ind., p. 255, 1889—same localities; idem, Cat. W. Ind. Bds., p. 91, 1892—same localities; Scott, Auk, 9, p. 11, 1892—Passage Fort, Jamaica; Sharpe, Cat. Bds. Brit. Mus., 23, p. 110, 1894—part, Cuba and Jamaica.

Porzana flaviventer gossii Barbour, Mem. Nutt. Orn. Cl., 6, p. 55, 1923—Cuba (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 373, 1931—Jamaica and Cuba; Peters, Bds. World, 2, p. 184, 1934 (range).

Range.—Islands of Cuba and Jamaica, Greater Antilles.

Conover Collection.—5: Cuba (San Cristóbal, Pinar del Rio, 1; Minas, Havana, 1; Havana, 3).

Porzana flaviventer hendersoni Bartsch.² HENDERSON'S RAIL.

¹ *Porzana flaviventer gossii* (Bonaparte): Similar to *P. f. flaviventer*, but upper parts browner, less blackish and less variegated with white; the breast decidedly paler, buff rather than ochraceous-buff. Wing, 65–72; bill, 16 $\frac{1}{4}$ –18.

Two specimens from Jamaica examined. Cuban birds are stated by authors to be identical.

² *Porzana flaviventer hendersoni* Bartsch, autoptically unknown to the authors, is stated by Wetmore to be exactly like *P. f. gossii*, but slightly smaller. Wing,

Porzana flaviventris hendersoni Bartsch, Proc. Biol. Soc. Wash., 30, p. 131, 1917—Trou Calman, Haiti (type in U. S. National Museum).

Crybastus gossei (not *Laterirallus gossii* Bonaparte) Gundlach, Journ. Orn., 26, pp. 162, 189, 1878—Arecibo River, Puerto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 391, 1878—Arecibo River.

Laterirallus gossei Stahl, Faun. Puerto Rico, p. 63, 1883—Puerto Rico; idem, Ornith., 3, p. 452, 1887—Puerto Rico.

Porzana flaviventris (not *Rallus flaviventer* Boddaert) Wetmore, Bull. U. S. Dept. Agr., 326, p. 36, 1916—Laguna de Guánica and Bayamón River, Puerto Rico; Danforth, Journ. Dept. Agr. Porto Rico, 10, p. 55, 1926—Cartagena Lagoon, Puerto Rico.

Porzana flaviventer hendersoni Wetmore, Sci. Surv. Porto Rico and Virgin Islands, 9, p. 338, 1927—Puerto Rico (crit.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 495, 1928—Trou Calman, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 133, 1931—Haiti (crit.); Danforth, Journ. Dept. Agr. Porto Rico, 15, p. 50, 1931—Cartagena and Anegada Lagoons, Puerto Rico; Peters, Bds. World, 2, p. 184, 1934 (range).

Range.—Islands of Hispaniola (Haiti) and Puerto Rico.

Porzana flaviventer woodi van Rossem.¹ WOOD'S RAIL.

Porzana flaviventer woodi van Rossem, Condor, 36, p. 243, 1934—Lake Olomega, Dept. San Miguel, El Salvador (type in coll. of Donald R. Dickey, now in University of California at Los Angeles); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 160, 1938—Lake Olomega, El Salvador (habits).

Range.—Known only from Lake Olomega, Dept. San Miguel, in El Salvador.

***Porzana flaviventer bangsi** Darlington.² BANGS'S RAIL.

Porzana flaviventer bangsi Darlington, Bull. Mus. Comp. Zool., 71, p. 372, 1931—Ciénaga, Magdalena, Colombia (type in Museum of Comparative Zoology, Cambridge, Mass.); Peters, Bds. World, 2, p. 185, 1934 (range).

61–63½; bill, 14½–16. As only a few specimens exist in collections, the slight difference needs corroboration by additional material before the claims of the form to recognition can be regarded as established.

¹ *Porzana flaviventer woodi* van Rossem: Nearest to *P. f. hendersoni*, which it resembles in proportions, but pectoral region even more whitish; white dorsal markings still more reduced on an even browner ground; crown paler; black loreal streak only half as wide as in all other races. Wing, (male) 60½; bill, 15.8 (van Rossem, l.c.).

² *Porzana flaviventer bangsi* Darlington: "Similar to the nominate race, but breast and sides of neck much paler buff, thereby resembling *P. f. gossii*, from which it may, however, be separated by having the upper wing coverts, rump, and interscapular region markedly blacker and more variegated with white." In other words, this race combines the coloration of the upper parts of *flaviventer* with the pale pectoral region of the West Indian forms. Proportions the same as in *P. f. flaviventer*. Wing, 63–65; bill, 16.

Range.—Tropical zone of northern Colombia (Ciénaga and Gamarra, Magdalena).

Conover Collection.—1: Colombia (Gamarra, Magdalena, 1).

***Porzana flaviventer flaviventer** (Boddaert). YELLOW-BREASTED RAIL.

Rallus flaviventer Boddaert, Tabl. Pl. Enl., p. 52, Dec., 1783—based on "Petit Râle, de Cayenne" Daubenton, Pl. Enl., pl. 847; Cayenne.

Rallus minutus Gmelin, Syst. Nat., 1, (2), p. 719, 1789—based on Daubenton, Pl. Enl., pl. 847; Cayenne.¹

Rallus superciliaris Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 565, 1819—based on "Ypacahá ceja blanca" Azara, No. 377; Paraguay.

Ortygometra flaviventris Hartlaub, Syst. Ind. Azara, p. 24, 1847—Paraguay (ex Azara).

Ortygometra minuta Burmeister, Syst. Uebers. Th. Bras., 3, p. 388, 1856—Guiana to Paraguay.

Porzana flaviventer Schlegel, Mus. Pays-Bas, Ralli, p. 31, 1865—Cayenne; Ihering, Faun. Braz., 1, p. 30, 1907 (range); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910—Tigre, Buenos Aires; idem, Bol. Soc. Physis, 1, p. 255, 1913—Buenos Aires (Tigre) and Santa Fé; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 600, 1924—Tigre, Buenos Aires; Zotta, El Hornero, 5, p. 377, 1934—Buenos Aires (food).

Porzana flaviventris Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 455—part, Cayenne, Venezuela (Caracas), Brazil, and Paraguay; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 43—Lagõa Santa, Minas Geraes; Sharpe, Cat. Bds. Brit. Mus., 23, p. 110, 1894—part, spec. b, c, Oyapock (French Guiana) and Brazil; Berlepsch, Nov. Zool., 15, p. 299, 1908—Oyapock River, French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 72, 1914—Pará and Rio Guamá (Ourém), Brazil; Chubb, Bds. Brit. Guiana, 1, p. 73, 1916—Abary River, Perth, and Essequibo River; Chapman, Bull. Amer. Mus. N. H., 36, p. 218, 1917—Juanchito Marshes, near Cali, Cauca, Colombia.

Porzana flaviventer flaviventer Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 41, 1918—Paramaribo and Altonaweg, Surinam; Peters, Bds. World, 2, p. 185, 1934 (range).

Range.—French, Dutch, and British Guiana; Venezuela (north coast region near Caracas and San Esteban; Lake Valencia; Culata and Nevados, Mérida); Colombia (Cali, Cauca); eastern Brazil (Pará; Ourém, Rio Guamá; Lagõa Santa, Minas Geraes); Paraguay (including the Paraguayan Chaco); northern Argentina (Santa Fé; Tigre, Buenos Aires).²

¹ Gmelin's var. β , based on Buffon's "Bidi-bidi," refers to the Jamaican race, *P. f. gossii*.

² This little rail has been recorded from widely scattered localities between the north coast of South America and Buenos Aires Province. A single adult

Field Museum Collection.—4: Venezuela (Lake Valencia, 3); British Guiana (Buxton, E. C., Demerara, 1).

Conover Collection.—7: Paraguay (170 km. west of Puerto Casado, 6; 235 km. west on the Riacho Negro, 1).

Genus *LATERALLUS* G. R. Gray

*Laterallus*¹ G. R. Gray, Cat. Gen. Subgen. Bds., p. 120, 1855—type, by orig. desig., *Rallus melanophaius* Vieillot.

Rufirallus Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, No. 12, p. 599, Sept., 1856—type, by subs. desig. (Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 450), *Rallus cayanaensis* "L"[innaeus] [=Boddaert]=*Rallus viridis* P. L. S. Müller.

Laterirallus Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, No. 12, p. 599, Sept., 1856—type, by subs. desig. (Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 450), *Rallus melanophaius* Vieillot.

Crybastus Cabanis, Journ. Orn., 4, No. 24, "November, 1856," p. 428, pub. after Feb. 16, 1857²—new name for *Laterirallus* Bonaparte.

Creciscus Cabanis, Journ. Orn., 4, No. 24, "November, 1856," p. 428, pub. after Feb. 16, 1857²—type, by orig. desig., *Rallus jamaicensis* Gmelin.

Erythrolimnas Heine, in Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 320, 1890—new name for *Rufirallus* Bonaparte.

Limnocyrex Ridgway, Smiths. Misc. Coll., 72, No. 4, p. 3, 1920—type, by orig. desig., *Porzana cinereiceps* Lawrence.

Thryocrex Ridgway, Smiths. Misc. Coll., 72, No. 4, p. 4, 1920—type, by orig. desig., *Corethrura rubra* Sclater and Salvin.

**Laterallus jamaicensis pygmaeus* (Blackwall).³ EASTERN BLACK CRAKE.

male from Lagõa Santa, southern Brazil, does not materially differ from northern individuals, while one from Argentina in the American Museum of Natural History, according to Mr. J. T. Zimmer (in litt.), is much grayer on the sides of the neck and scapulars and has very little buff on throat and sides of the breast, suggesting the existence of a southern race, for which Vieillot's name *Rallus superciliaris* would be available. The junior author, however, does not find these characters present in seven specimens from the Paraguayan Chaco, which he has recently acquired. Mr. Zimmer also writes that two Cali skins agree fairly well with two others from the Mérida region, Venezuela, and do not correspond to the characters of *P. f. bangsi*.

Additional material examined.—Guiana: Oyapock River, 1; Demerara, 1.—Venezuela: near Caracas, 1; unspecified, 1.—Brazil: Lagõa Santa, Minas Geraes, 1.

¹ *Laterallus* Bonaparte (Ann. Sci. Nat., Zool., (4), 1, p. 150, 1854) is a nomen nudum.

² Cf. Peters, Proc. Biol. Soc. Wash., 45, pp. 119–120, 1932.

³ *Laterallus jamaicensis pygmaeus* (Blackwall): Equal to typical *jamaicensis* in size, but with the bill shorter and slenderer; chestnut brown of the nape and mantle duller.

Additional material examined.—Florida (Key West, 1).

Sharpe (Cat. Bds. Brit. Mus., 23, p. 135, 1894) quotes a *Crex pygmaea* Bechstein, but there seems to be no such thing. The earliest use of that name for a

Crex pygmaea Blackwall, Edinb. Journ. Sci. (conducted by David Brewster), (n.s.), 6, p. 77, Oct., 1832—Philadelphia, Pennsylvania (type in coll. of Robert Wood, Manchester).

Cresciscus [sic] *jamaicensis stoddardi* Coale, Auk, 40, p. 89, 1923—Hyde Lake, South Chicago, Illinois (type in Field Museum of Natural History examined).

Cresciscus jamaicensis (not *Rallus jamaicensis* Gmelin) Sharpe, Cat. Bds. Brit. Mus., 23, p. 135, 1894—part, eastern North America, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 323, 1903—part, Lake of Dueñas, Guatemala; Cooke, Bull. U. S. Dept. Agr., 128, p. 33, 1914—part, except Jamaica (distr., migr.); Bent, Bull. U. S. Nat. Mus., 135, p. 326, 1926 (life hist.).

Porzana jamaicensis Allen, Auk, 17, p. 1, pl. 1, 1900—part, except Jamaica (lit., life hist.); Stone, Auk, 17, p. 171, 1900 (breeding Raleigh, North Carolina); Brewster, Auk, 24, p. 208, 1907—part, except Jamaica (descr., dist. char.).

Cresciscus jamaicensis stoddardi Wayne, Auk, 40, p. 319, 1923 (crit., reject.).

Laterallus jamaicensis stoddardi Peters, Bds. World, 2, p. 189, 1934 (range).

Range.—Breeds from Massachusetts, southern Ontario(?) and Minnesota south to Kansas, Illinois, and Florida. Winters mainly south of the United States.

Field Museum Collection.—8: Illinois (Hyde Lake, Cook County, 1); Indiana (Windfall, Tipton County, 1); South Carolina (Mount Pleasant, Charleston, 1); Florida (St. Marks, Wakulla County, 5).

Conover Collection.—1: Florida (Warrington, Escambia County, 1).

****Laterallus jamaicensis coturniculus* (Ridgway).¹ FARALLON BLACK CRAKE.**

Porzana jamaicensis var. *coturniculus* "Baird" Ridgway, Amer. Nat., 8, p. 111, 1874—Farallon Islands, Coast of California (type in U. S. National Museum).

Cresciscus jamaicensis (not *Rallus jamaicensis* Gmelin) Sharpe, Cat. Bds. Brit. Mus., 23, p. 135, 1894—part, California.

Cresciscus coturniculus Sharpe, Cat. Bds. Brit. Mus., 23, p. 137 (footnote), 1894; Ingersoll, Condor, 11, p. 123, 1909 (nesting); Cooke, Bull. U. S. Dept. Agr., 128, p. 35, 1914 (distr., migr.); Huey, Condor, 18, p. 58, 1916 (life hist.); Oberholser, Auk, 35, p. 63, 1918 (crit.); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 304, 1918 (habits, range); Bent, Bull. U. S. Nat. Mus., 135, p. 332, 1926 (life hist.).

European Rail dates from Naumann (Naturg. Vog. Deuts., 9, p. 567, 1838), therefore *Crex pygmaea* Blackwall takes precedence over *Cresciscus jamaicensis stoddardi* Coale.

¹ *Laterallus jamaicensis coturniculus* (Ridgway): Differs from typical *jamaicensis* from Jamaica in being smaller (wing 63–68 against 69–72) and in having a slenderer bill; also the tarsus and middle toe are shorter (19–21 against 22–24). The white markings of the upper parts are more plentiful and average larger.

Porzana jamaicensis coturniculus Brewster, Auk, 24, p. 208, 1907 (dist. char.).

Creciscus jamaicensis coturniculus Grinnell, Univ. Calif. Pub. Zool., 32, p. 87, 1928—Lower California.

Laterallus jamaicensis coturniculus Peters, Bds. World, 2, p. 189, 1934 (range).

Range.—Known to breed only in the vicinity of San Diego, California. Occurs in summer in central California (Suisun, Farallon Islands) with casual records from Oregon (Malheur Lake) and, perhaps, Washington (Tacoma). Range extends south along the coast of California to northwestern Lower California (San Quintín; San Ramón).

Field Museum Collection.—11: California (Point Reyes, 5; Marshall, 1; Marin County, 2; San Francisco, 1; Redwood City, 1; unspecified, 1).

Conover Collection.—9: California (Point Reyes, Marin County, 8; Mount Eden, Alameda County, 1).

****Laterallus jamaicensis jamaicensis* (Gmelin). JAMAICAN BLACK CRAKE.**

Rallus jamaicensis Gmelin, Syst. Nat., 1, (2), p. 718, 1789—based on "The Least Water-Hen" Edwards, Glean. Nat. Hist., 2, p. 142, pl. 278 (lower fig.); Jamaica.

Creciscus jamaicensis Sharpe, Cat. Bds. Brit. Mus., 23, p. 135, 1894—part, Jamaica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 323, 1903—part, Jamaica; Cooke, Bull. U. S. Dept. Agr., 128, p. 33, 1914—part, Jamaica.

Porzana jamaicensis Allen, Auk, 17, p. 1, pl. 1—part, Jamaica (lit., life hist.); Brewster, Auk, 24, p. 208, 1907—part, Jamaica (descr., dist. char.).

Laterallus jamaicensis jamaicensis Peters, Bds. World, 2, p. 189, 1934 (range).

Range.—Island of Jamaica.¹

Conover Collection.—1: Jamaica (Spanish Town, 1).

***Laterallus jamaicensis murivagans* (Riley).² PERUVIAN BLACK CRAKE.**

Creciscus murivagans Riley, Proc. Biol. Soc. Wash., 29, p. 104, 1916—Lima, Peru (type in U. S. National Museum examined).

¹ *Additional material examined.*—Jamaica (near Spanish Town, 2; unspecified, 3).

² *Laterallus jamaicensis murivagans* (Riley): Very similar to *L. j. salinasi*, but distinguished by having the ground color of the back paler, decidedly fuscous brown (less blackish) with the white markings forming regular transverse bars across the whole width of the feathers instead of being broken up into separate marginal spots, and the abdominal line as well as the under tail coverts nearly uniform light pinkish cinnamon (not barred with slate color and white). Wing, 76–79; tail, 32–37; bill, 13–15.

Seven specimens from Lima examined.

Porzana jamaicensis (not *Rallus jamaicensis* Gmelin) Sclater, Proc. Zool. Soc. Lond., 1867, p. 343—Lima; Sclater and Salvin, l.c., 1868, p. 455—part, Lima; Taczanowski, Orn. Pér., 3, p. 321, 1886—Lima; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 394—Lima.

Creciscus salinazi (not *Rallus salinasi* Philippi) Sharpe, Cat. Bds. Brit. Mus., 23, p. 136, 1894—part, spec. a, b, Lima.

Creciscus jamaicensis murivagans Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 359 (in text), 1932—littoral of Peru (crit.).

Laterallus jamaicensis murivagans Peters, Bds. World, 2, p. 190, 1934—littoral of Peru.

Range.—Littoral of Peru (Lima).

****Laterallus jamaicensis salinasi* (Philippi).¹ CHILEAN BLACK CRAKE.**

Rallus salinasi Philippi, Anal. Univ. Chile, 14, p. 180, 1857—Chile (probable type, from Paine, Prov. Santiago, in Museo Nacional, Santiago de Chile; cf. Gigoux and Looser, Bol. Mus. Nac. Santiago, 13, p. 25, 1930); idem, Arch. Naturg., 23, (1), p. 262, 1857—Chile.

Porzana jamaicensis (not *Rallus jamaicensis* Gmelin) Sclater, Proc. Zool. Soc. Lond., 1867, pp. 333, 339—Chile (crit.); idem and Salvin, l.c., 1868, p. 455—part, Chile; Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 377, 1884—part, Chile; Reed, Anal. Univ. Chile, 49, p. 565, 1877—Colchagua(?), Chile; idem, l.c., 93, p. 209, 1896—Chile.

Gallinula salinasi Philippi, Anal. Univ. Chile, 31, p. 278, 1868—Province of Santiago, Chile.

Creciscus salinazi [sic] Sharpe, Cat. Bds. Brit. Mus., 23, p. 136, 1894—part, spec. c-g, Santiago Province, Chile.

Rallus (*Porzana*) *salinasi* Philippi, Anal. Mus. Nac. Chile, 15, p. 69, pl. 23, fig. 2, 1902—Chile.

Creciscus jamaicensis salinasi Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 358, 1932—vicinity of Santiago, Chile (crit.); Barros, Rev. Chil. Hist. Nat., 37, p. 65, 1933—Limache (Valparaíso) and Fundo Romeral (San Francisco de Mostazal), Chile (egg descr.).

Laterallus jamaicensis salinasi Peters, Bds. World, 2, p. 190, 1934—Chile.

Range.—Central Chile from Aconcagua to Colchagua.²

Field Museum Collection.—1: Chile (unspecified, 1).

¹ *Laterallus jamaicensis salinasi* (Philippi) is closely related to the Black Rail of North America, but may be separated by the much more extensive, as well as brighter (russet instead of carob or chestnut brown) nuchal area, broader and more numerous white bars on the flanks, and longer toes. The blackish ground color of the back with the reduced spot-like white markings is about the same as in the North American bird. Wing, 76–78; tail, 33–37; bill, 14–16.

Additional material examined.—Chile: vicinity of Santiago, 5; unspecified, 2.

² What *Porzana jamaicensis* Schlegel (Mus. Pays-Bas, Ralli, p. 36, 1865), from “Nouvelle Grenade,” might be, remains in doubt. No representative of this group has been obtained of late in any part of Colombia.

Laterallus spilopterus (Durnford).¹ SPOTTED-WINGED CRAKE.

Porzana spiloptera (Burmeister MS.) Durnford, Ibis, (4), 1, p. 194, pl. 3, 1877—Belgrano, Prov. Buenos Aires (type in British Museum); [Sclater and Saunders], Ibis, 1888, p. 285—near Buenos Aires; Sharpe, Cat. Bds. Brit. Mus., 23, p. 109, 1894—Belgrano; Hartert and Venturi, Nov. Zool., 16, p. 258, 1909—Barracas al Sud, Buenos Aires; Giacomelli, El Hornero, 3, p. 81, 1923—Paso del Recreo, La Rioja; Serié, l.c., 3, p. 191, 1923—Pradere (F.C.O.), about 440 km. west of Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 600, 1924—Buenos Aires Province; Dabbene, El Hornero, 3, p. 422, 1926—Barra de Pando, Dept. Canelones, Uruguay; Pereyra, l.c., 4, p. 23, 1927—Zelaya, Buenos Aires; Peters, Bds. World, 2, p. 184, 1934—Argentina.

Porzana salinasi (not *Rallus salinasi* Philippi) Sclater and Hudson, Arg. Orn., 2, p. 155, 1889—Belgrano, Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 196, 1910—Prov. Buenos Aires and San Juan; Gibson, Ibis, 1920, p. 40—Cape San Antonio, Buenos Aires.

Range.—Uruguay (Barra de Pando, Dept. Canelones) and Argentina (from Buenos Aires west to Paso del Recreo, La Rioja, and San Juan).

***Laterallus xenopterus** Conover.² HORQUETA CRAKE.

Laterallus xenopterus Conover, Auk, 51, p. 365, 1934—Horqueta, 40 km. east of Paraguay River, Paraguay (type in Conover Collection, Field Museum of Natural History).

Range.—Paraguay (Horqueta, 40 km. east of Paraguay River, long. 57° 10' W., lat. 23° 24' S.).

Conover Collection.—1: Paraguay (Horqueta, 1).

¹ *Laterallus spilopterus* (Durnford), though unquestionably congeneric, differs so widely in coloration from *L. j. salinasi* that it may provisionally be accorded specific rank. It differs from its western ally by having the upper part of the head, back, and rump rufescent olive brown coarsely spotted with black without trace of white, and by the great reduction of the white markings on the wings. The smaller upper wing coverts are chiefly pale brown with only a few black and white subapical spots, and the larger ones as well as the tertials are externally broadly edged with pale brown and have but a limited number of broader white bars, whereas in *L. j. salinasi* all these parts are closely barred with black and white without any brown edges. The white spots and bars on primaries and secondaries, so conspicuous in *salinasi*, are wholly absent in the Argentine bird, and the tail feathers are uniform blackish brown, exteriorly margined with olive brown. Wing, 74–77; bill, 13–14.

Material examined.—Argentina: Buenos Aires, 1; Barracas al Sud, Buenos Aires, 2; Santa Fé, Prov. Santa Fé, 1.

² *Laterallus xenopterus* Conover: Top of head, sides of face to below auriculars, upper part of the neck, and mantle dark rufous (nearest to chestnut of Ridgway); lores brownish gray; back and rump brown; upper wing coverts and scapulars brownish black, broadly barred with white; primaries and secondaries brown; bend of the wing white; throat cream color; front and sides of the neck, chest, and upper breast buffy ochraceous (clay color of Ridgway); lower breast, belly, and vent white; sides of body and flanks white, broadly barred with brownish black; under wing coverts white, slightly mottled with dusky; axillaries brown, apically

Laterallus spilonotus (Gould). GALAPAGOS CRAKE.

Zapornia spilonota Gould, in Darwin, Zool. Beagle, 3, Birds, Part 15, p. 132, pl. 49, 1841—Galápagos Archipelago=James Island (type formerly in coll. of Zoological Society of London, apparently lost).

Porzana spilonota Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 456—Galápagos (monog.); idem, l.c., 1870, p. 323—Indefatigable; Salvin, Trans. Zool. Soc. Lond., 9, p. 500, 1876—James and Indefatigable (descr.); Ridgway, Proc. U. S. Nat. Mus., 19, "1896," p. 618, 1897—Indefatigable and James (ex Sharpe); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 256, 1904—James.

Creciscus spilonotus Sharpe, Cat. Bds. Brit. Mus., 23, p. 137, 1894—Indefatigable; Rothschild and Hartert, Nov. Zool., 6, p. 184, 1899—James Island (crit.); Gifford, Proc. Calif. Acad. Sci., (4), 2, p. 12, 1913—Abingdon, Albemarle, Indefatigable, James, Narborough, and Seymour Islands (crit., habits); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 52, 1931—same localities (crit.).

Porzana galapagoensis Sharpe, Cat. Bds. Brit. Mus., 23, p. 113, 1894—Galápagos Islands (type in British Museum); Ridgway, Proc. U. S. Nat. Mus., 19, "1896," p. 619, 1897 (ex Sharpe).

Creciscus sharpei Rothschild and Hartert, Nov. Zool., 6, p. 185, 1899—Indefatigable Island (type in Tring Collection, now in the American Museum of Natural History; cf. Hartert, Nov. Zool., 34, p. 24, 1927); idem, l.c., 9, p. 412, 1902—Indefatigable and Narborough (crit.).

Porzana sharpei Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 256, 1904—Narborough.

Laterallus spilonotus Peters, Bds. World, 2, p. 190, 1934—Galápagos.

Range.—Galapagos Archipelago (recorded from Abingdon, James, Seymour, Indefatigable, Albemarle, and Narborough Islands).¹

***Laterallus exilis** (Temminck).² TEMMINCK'S CRAKE.

Rallus exilis Temminck, Nouv. Rec. Pl. Col., livr. 87, pl. 523, Jan. 22, 1831—"envoyé au Musée de Paris par M. Martin" (the type examined in the Paris Museum is from Cayenne).

white. Bill dusky, with tip of lower mandible light horn; feet dark brown. Wing (adult female), 89; tarsus, 27.5; middle toe with claw, 30.5; bill, 16.

This very distinct species, of which a single adult female (without tail) was secured at Horqueta on November 17, 1933, by Alberto Schulze, resembles *L. spilopterus* in having the upper wing coverts broadly barred with white, but differs at a glance by the buffy ochraceous foreneck, chest, and breast, while the rufous coloration of the head and mantle recalls *L. leucopyrrhus*.

¹ From the study by Gifford and Swarth of the large series in the collection of the California Academy of Sciences it results that there is no local variation in the Galapagos Crake, and that *C. sharpei*, of Indefatigable and Narborough, cannot be separated from the birds found on James and other islands.

Six specimens examined.

² It is quite possible that *Rallus cinereus* Vieillot (Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 556, 1819), from Cayenne, is the same bird, though in the description no mention is made of the striking rufous nuchal area. Hellmayr could not find in the French National Collection any specimen bearing Vieillot's name, although the type is credited by the describer to the Muséum d'Histoire Naturelle.

Gallinula ruficollis Swainson, Anim. Menag., p. 349, Dec. 31, 1837—"America" (type in the Andersonian Museum of Glasgow).

Ortygometra cinerea (not *Rallus cinereus* Vieillot) Léotaud, Ois. Trinidad, p. 495, 1866—Trinidad.

Porzana exilis Schlegel, Mus. Pays-Bas, Ralli, p. 35, 1865—Guiana; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 567—lower Ucayali, Peru.

Porzana cinerea Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 456—Cayenne, Peru (Ucayali), Pará, and Trinidad (monog.); Pelzeln, Orn. Bras., 3, p. 317, 1870—Marabitanas, Rio Negro, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 308—lower Ucayali, Peru; Taczanowski, Orn. Pér., 3, p. 322, 1886—lower Ucayali.

Porzana exilis vagans Ridgway,¹ Proc. U. S. Nat. Mus., 10, "1887," p. 595, 1888—Segovia River, Honduras (type in U. S. National Museum examined); Richmond, I.c., 16, p. 530, 1893—Rio Escondido, Nicaragua.

Creciscus exilis Sharpe, Cat. Bds. Brit. Mus., 23, p. 138, 1894—Trinidad, Cayenne, Surinam (Maroni River), and Peru (Nauta); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 323, 1903—Honduras (Segovia River), Nicaragua (Rio Escondido), Guiana, Amazons, and Trinidad; Ihering, Cat. Faun. Braz., 1, p. 30, 1907 (range); Berlepsch, Nov. Zool., 15, p. 299, 1908—Cayenne; Penard, Vog. Guyana, 1, p. 209, 1908—Surinam; Sneath, Bol. Mus. Goeldi, 8, p. 72, 1914—Pará; Chubb, Bds. Brit. Guiana, 1, p. 76, 1916—Bonasika and Abary rivers.

[*Creciscus exilis*] subsp. *a. Creciscus vagans* Sharpe, Cat. Bds. Brit. Mus., 23, p. 139, 1894—Segovia River (ex Ridgway).

Creciscus exilis exilis Hellmayr, Nov. Zool., 14, p. 90, 1907—Teffé, Rio Solimões, Brazil; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 82, 97, 1912—Peixe-Boi, Pará; Chapman, Bull. Amer.

¹ Comparison of the type of *L. e. vagans* Ridgway and another specimen from the Escondido River in Nicaragua with eight examples of *exilis* from Brazil shows that no difference in size exists between these two groups. There is no difference in color either. The name *vagans* has therefore been reduced to synonymy. Below are the measurements of the ten specimens.

	Wing	Tarsus	Toe (Without nail)	Bill
One male (type)	73	26	26	17
Segovia River, Honduras				
One male	70.5	22.5	26	16
Escondido River, Nicaragua				
One male	70	23	26	15
Pará				
One male	76	25	29	16.5
São Paulo de Olivença, Solimões				
One male	77	23	26	16.5
São Paulo de Olivença, Solimões				
One male	68	24	26	17
Lago Cuipeua				
One male	73	23	28	15.5
Lago Cuipeua				
One female	71	23	25.5	15.5
Lago Cuipeua				
One female	73	23	25.5	15
Lago Cuipeua				
One immature female	73	22.5	25	14
Tomé-assú, Rio Acará				

Mus. N. H., 55, p. 177, 1926—Esmeraldas, western Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 152, 1928—Pará; Naumburg, Bull. Amer. Mus. N. H., 60, p. 73, 1930—Rio Solimões, above mouth of Rio Negro, Brazil; Roberts, Trop. Agric., 11, p. 90, 1934—Trinidad.

Creciscus exilis vagans Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 303, 1932—Segovia River (ex Ridgway).

Laterallus exilis vagans Peters, Bds. World, 2, p. 190, 1934 (range).

Laterallus exilis exilis Peters, Bds. World, 2, p. 190, 1934 (range); Belcher and Smooker, Ibis, 1935, p. 284—Caroni Marshes, Trinidad (nest and eggs descr.).

Range.—Honduras (Segovia River); Nicaragua (Rio Escondido); Island of Trinidad; Venezuela (Hechisera, Mérida); French, Dutch, and British Guiana; northern Brazil (from Pará to the Rio Negro and the Rio Solimões); eastern Peru (lower Ucayali; Nauta); western Ecuador (one record from Esmeraldas).¹

Field Museum Collection.—3: Brazil (Itacoatiará, 3).

Conover Collection.—8: Brazil (Lago Cuipeua, Pará, 4; Toméassú, Rio Acará, 1; Pará, 1; São Paulo de Olivença, Rio Solimões, 2).

****Laterallus melanophaeus cinereiceps* (Lawrence).² LAWRENCE'S CRAKE.**

Porzana cinereiceps Lawrence, Ann. Lyc. Nat. Hist. N. Y., 11, p. 90, 1875—Talamanca, Costa Rica (type in U. S. National Museum); Ridgway, Proc. U. S. Nat. Mus., 6, p. 409 (note), 1883—Talamanca (crit.); idem, l.c., 10, p. 111, 1887—Talamanca (crit.); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 131, 1887—Pacuare, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 528, 1893—Costa Rica (Rio Frio) and Nicaragua (Greytown, Escondido River, Los Sábalos) (crit., variation); idem, Auk, 12, pp. 19, 32, 1895 (life history, crit., synonym.).

Porzana albigularis (not *Corethrura albigularis* Lawrence) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 280—Blewfields River, Nicaragua; idem, l.c., 1868, p. 454—part, "Mosquitia"; idem, Exot. Orn., p. 109, 1868—part, Bluefields River, Nicaragua.

Porzana leucogastra Ridgway, Proc. U. S. Nat. Mus., 6, p. 408, 1884—Los Sábalos, Nicaragua (type in U. S. National Museum); idem, l.c., 10, p. 111, 1887—Los Sábalos (crit.).

Creciscus albigularis Sharpe, Cat. Bds. Brit. Mus., 23, p. 140, 1894—part, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 324, 1903—part, Nicaragua (Greytown, Bluefields, Rio Escondido, Los Sába-

¹ *Additional material examined*.—Honduras: Segovia River, 1 (type of *vagans*).—Nicaragua: Escondido River.—French Guiana: Cayenne, 2.—Surinam, 1.—Venezuela: Hechisera, Mérida, 2.—Brazil: Peixe-Boi, Pará, 1; Marabitanas, Rio Negro, 5; Tefé, Rio Solimões, 2.

² The Central American representatives are clearly conspecific with *L. melanophaeus*. Certain specimens of the nominate race can hardly be told apart from *cinereiceps* except by their rufous (instead of gray) auriculars.

los) and eastern Costa Rica (Talamanca, Pacuarito, Desamporados, Jiménez, Reventazón, Sipurio, Juan Viñas, Azahar de Cartago, Carrillo); Carriker, Ann. Carnegie Mus., 6, p. 410, 1910—Caribbean Costa Rica (Juan Viñas, Reventazón, Carrillo, Cariblanco, Cachí, Guápiles, Bonilla); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Chiriquito, Almirante Bay, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 301, 1931—Almirante, Changuinola, and Guábo, Almirante Bay, Panama.

Creciscus cinereiceps Sharpe, Cat. Bds. Brit. Mus., 23, p. 337, 1894—Rio Escondido, Nicaragua.

Creciscus cinereiceps leucogaster Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 209, 1932—Eden, Nicaragua (crit., nest and eggs).

Laterallus albigularis cinereiceps Peters, Bds. World, 2, p. 190, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Caribbean slope of Panama to Rio Calovévora, Veraguas.

Range.—Caribbean slope of Nicaragua and Costa Rica, south to the Almirante Bay region and, according to Griscom, even to the Rio Calovévora, Veraguas, in western Panama.¹

Field Museum Collection.—3: Costa Rica (Talamanca, 1; Limón, 1; Jiménez, 1).

Conover Collection.—11: Costa Rica (Peralta, 3; Limón, 1); Panama (Cricamola, Bocas del Toro, 7).

****Laterallus melanophaius albigularis* (Lawrence). WHITE-THROATED CRAKE.**

Corethrura albigularis Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 302, 1861—"Atlantic side of the Isthmus of Panama along the line of the Panama Railroad" (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Slater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 372—Panama Railroad.

Porzana albigularis Slater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 454—part, Panama and Costa Rica [=Barránca, Gulf of Nicoya]; *idem*, Exot. Orn., p. 109, pl. 55, 1868—part, Isthmus of Panama and Costa Rica (Barránca, Gulf of Nicoya); *idem*, Proc. Zool. Soc. Lond., 1879, p. 546—Remedios, Antioquia, Colombia (nest and egg descr.); Ridgway, Proc. U. S. Nat. Mus., 10, p. 111, 1887—Isthmus of Panama (crit.); Richmond, Auk, 12, p. 31, 1895 (synon.); Bangs, Proc. Biol. Soc. Wash., 12, pp. 157, 172, 1898—Pueblo Viejo and Palomina, Colombia; *idem*, Proc. New Engl. Zool. Cl., 2, p. 14, 1900—Loma del Leon, Panama.

Porzana alfari Ridgway, Proc. U. S. Nat. Mus., 10, p. 111, 1887—Las Trojas, Pacific coast of Costa Rica² (type formerly in Museo Nacional de Costa Rica, now in U. S. National Museum;³=immature).

¹ As has been shown by Richmond, *P. leucogastra* was based on individual variation of *L. cinereiceps*.

² Near San Mateo, in the neighborhood of the Gulf of Nicoya (fide Geo. K. Cherrie, in Richmond, Auk, 12, p. 31, 1895).

³ Cf. Bangs, in Carriker, Ann. Carnegie Mus., 6, p. 410, 1910.

Creciscus alfara [sic] Sharpe, Cat. Bds. Brit. Mus., 23, p. 241, 1894 (ex Ridgway).

Creciscus albigularis Sharpe, Cat. Bds. Brit. Mus., 23, p. 140, 1894—Costa Rica (Barránca, Nicoya), Veragua, Panama (Lion Hill), and Colombia (Remedios); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 12, 1899—Laguna de Pita, Darien; Hartert, Nov. Zool., 9, p. 604, 1902—San Javier, Prov. Esmeraldas, Ecuador (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 324, 1903—Costa Rica (Las Trojas), Panama (Lion Hill, Veragua, Laguna de Pita), and Colombia; Carriker, Ann. Carnegie Mus., 6, p. 410, 1910—Costa Rica (Las Trojas, Barránca); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1208—Sipi, Rio Sipi, Pacific Colombia; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B. 8, 1911—Santo Domingo de los Coronados, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 218, 1917—San Antonio and Barbacoas (Nariño), Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 244, 1918—Gatún, Panama; Todd and Carriker, Ann. Carnegie Mus., 14, p. 179, 1922—La Concepción, Mamatoco, and Fundación, Santa Marta, Colombia; Chapman, Bull. Amer. Mus. N. H., 55, p. 178, 1926—Esmeraldas and Rio de Oro, Ecuador; Griscom, Bull. Mus. Comp. Zool., 69, p. 155, 1929—Cana, Darien; Darlington, l.c., 71, p. 373, 1931—Ciénaga, Magdalena, Colombia; Griscom, l.c., 72, p. 321, 1932—Permé, eastern Panama. *Creciscus cinereiceps* (not *Porzana cinereiceps* Lawrence) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 325, 1902—part, La Barránca, Nicoya, Costa Rica.

Laterallus albigularis albigularis Peters, Bds. World, 2, p. 190, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 304, 1935—Panama (range).

Range.—Pacific lowlands of Costa Rica (two records from Barránca and Las Trojas, Gulf of Nicoya) south through Panama and northern and western Colombia (Santa Marta region; Remedios, Rio Ité; Pacific slope) to western Ecuador (south to Rio de Oro).¹

Field Museum Collection.—2: Panama (Colón, 2).

Conover Collection.—15: Panama (Port Obaldia, Darien, 8; Permé, 1); Colombia (Fundación, Santa Marta, 1; Munchique, El Tambo, Cauca, 1); Ecuador (San Mateo, Esmeraldas, 2; Santo Domingo, 1; Gualea, 1).

****Laterallus melanophaius oenops* (Sclater and Salvin).² ECUADORIAN CRAKE.**

¹ Specimens from western Ecuador (San Javier, three) and Colombia (Remedios, two; Sipi, one) seem to be inseparable from Panama (Lion Hill) birds. The proper identification of the inhabitants of the lowlands along the Gulf of Nicoya in Costa Rica is perhaps somewhat doubtful owing to the unsatisfactory condition of the two existing examples. The one obtained by E. Arcé being in juvenile plumage is practically useless for comparative purposes. The type of *P. alfari* shows slight traces of gray on the lores, auriculars, and under the eyes (cf. Richmond, Auk, 12, p. 31, 1905), but the late Outram Bangs (as quoted by Carriker, Ann. Carnegie Mus., 6, p. 410, 1910) considered it a slightly immature example of *albigularis*.

² *Laterallus melanophaius oenops* (Sclater and Salvin) differs from the nominate race by lighter, more olivaceous (less dusky) upper parts and by having the fore-

Porzana oenops Sclater and Salvin, Proc. Zool. Soc. Lond., 1880, p. 161—Sarayacu, eastern Ecuador (type in Salvin-Godman Collection, now in British Museum).

Creciscus aenops Sharpe, Cat. Bds. Brit. Mus., 23, p. 140, 1894—Sarayacu; Chapman, Bull. Amer. Mus. N. H., 36, p. 218, 1917—La Morelia, Caquetá, Colombia.

Creciscus oenops Chapman, Bull. Amer. Mus. N. H., 55, p. 178, 1926—Sarayacu.

Creciscus melanophaeus (not *Rallus melanophaeus* Vieillot) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 49—La Merced, Chanchamayo, Peru.

Laterallus melanophaeus oenops Peters, Bds. World, 2, p. 191, 1934—eastern Colombia and Ecuador.

Range.—Tropical zone of southeastern Colombia (La Morelia, Caquetá), eastern Ecuador (Sarayacu), eastern Peru (La Merced, Chanchamayo, Dept. Junín), and western Brazil (Rio Purús).

Conover Collection.—4: Brazil, Amazonas (Labrea, Rio Purús, 4).

****Laterallus melanophaeus melanophaeus* (Vieillot). BRAZILIAN CRAKE.**

Rallus melanophaeus Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 549, 1819—based on "Ypacahá pardo obscuro" Azara, No. 376; Paraguay.

Crex lateralis Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 79, 1823—"Brazil" = Bahia (cf. idem, Nomencl. Av. Mus. Berol., p. 96, 1854; type in Berlin Museum); Darwin, Zool. Beagle, 3, Birds, p. 132, 1841—Maldonado and Rio de la Plata.

Gallinula albifrons Swainson, Anim. Menag., p. 338, Dec. 31, 1837—"Brazil" (type in coll. of W. Swainson, now in University Museum, Cambridge, Engl.).

Gallinula lateralis Wied, Beitr. Naturg. Bras., 4, (2), p. 805, 1833—eastern Brazil.

Ortygometra lateralis Burmeister, Syst. Uebers. Th. Bras., 3, p. 387, 1856—middle Brazil to Paraguay.

Porzana melanophaia Schlegel, Mus. Pays-Bas, Ralli, p. 35, 1865—Brazil.

head, the supraloral, and postocular regions strongly tinged with rufous. Wing (male), 85; tail, 45; bill, 19.

A single male from La Merced, Chanchamayo, Peru, examined by the senior author, differs from a good series of *melanophaeus* (Paraguay to Guiana) as stated above, and although direct comparison with topotypical material could not be effected it answers so well the original description of *oenops* that its pertinence to that form seems hardly in doubt.

Four specimens from the Rio Purús in the Conover Collection are somewhat smaller (wing of adult males, 76–80; bill, 18) than the Peruvian bird. They also show the reddish forehead and differ, besides, from *melanophaeus* by slenderer tarsus and toes, shorter and basally heavier bill, distinctly black-and-white barred under wing coverts, and narrower white barring to the axillaries. *L. m. oenops* would thus seem to be widely distributed in Upper Amazonia.

Porzana melanophaea Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 453—southern Brazil, Paraguay, Bolivia (Chiquitos), and Venezuela (Cumaná, Caracas) (monog.); iidem, Exot. Orn., p. 107, pl. 54, 1868 (monog.); Pelzeln, Orn. Bras., 3, p. 317, 1870—Rio de Janeiro; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 43—Minas Geraes; Layard, Ibis, 1873, p. 396—Rio Guamá, Pará; Cabanis, Journ. Orn., 22, p. 231, 1874—Cantagallo, Rio de Janeiro; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 641—Chiquitos, Bolivia.

Creciscus melanophaeus Sharpe, Cat. Bds. Brit. Mus., 23, pp. 139, 337, 1894—Pará, Pernambuco, Minas Geraes (Santa Fé), Rio Grande do Sul, and Surinam; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 148, 1899—Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 417, 1899—Cachoeira, São Paulo; idem, l.c., 4, p. 164, 1900—Cantagallo, Rio de Janeiro; Sneath, Bol. Mus. Goeldi, 8, p. 73, 1914—Pará and Rio Guamá, Brazil; Arribáizaga, El Hornero, 2, p. 90, 1920—Argentine Chaco.

Creciscus melanophaeus Hellmayr, Nov. Zool., 12, p. 304, 1905—Igarapé-Assú, Pará; Ihering, Cat. Faun. Braz., 1, p. 30, 1907—Espírito Santo and São Paulo (Iguapé, Ubatuba, Cachoeira, Jaboticabal); Hartert and Venturi, Nov. Zool., 16, p. 258, pl. 3, fig. 16 (egg), 1909—Barracas al Sud, Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910—Chaco, Buenos Aires (Barracas al Sud), and La Rioja (Cochangasta); idem, Bol. Soc. Physis, 1, p. 256, 1913—Barracas al Sud and Chaco; Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Chaco; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Igarapé-Assú and Rio Guamá, Pará; Giacomelli, El Hornero, 3, p. 81, 1923—Cochangasta, La Rioja; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 601, 1924—Barracas al Sud, Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 124, 1926—Riacho Pilaga, Formosa; Dabbene, El Hornero, 3, p. 422, 1926—Montevideo, Uruguay; Pereyra, l.c., 4, p. 414, 1931—San Isidro, Buenos Aires (breeding); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 152, 1928—Pará.

Ortygometra (Creciscus) melanophaea Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 96, 1910—Santa Philomena, Piahy.

Creciscus melanophaeus macconnelli Chubb, Bds. Brit. Guiana, 1, p. 75, pl. 3, fig. 1, 1916—Bonasica River, British Guiana (type in British Museum).

Creciscus melanophaeus lateralis Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 483, 1929—Santa Philomena, Piahy (crit.).

Creciscus melanophaeus melanophaeus Pinto, Rev. Mus. Paul., 19, p. 75, 1935—Aratuhye and Corupéba, Bahia (crit.).

Laterallus melanophaeus lateralis Peters, Bds. World, 2, p. 191, 1934—British Guiana to Bahia.

Laterallus melanophaeus melanophaeus Peters, Bds. World, 2, p. 191, 1934—Rio de Janeiro to Uruguay and Argentina.

Range.—Venezuela and British Guiana south through eastern Brazil to Rio Grande do Sul; Uruguay; Paraguay; northern Argentina (terr. of Chaco and Formosa; Barracas al Sud and San

Isidro, Buenos Aires; Cochangasta, La Rioja); eastern Bolivia (Chiquitos).¹

Field Museum Collection.—1: Brazil (São Sebastião, São Paulo, 1).

Conover Collection.—8: Brazil (Villa Braga, Rio Tapajóz, 1); Paraguay (Villa Rica, 5; Horqueta, 2).

****Laterallus ruber tamaulipensis* (Nelson).² TAMAULIPAS CRAKE.**

Creciscus ruber tamaulipensis Nelson, Proc. Biol. Soc. Wash., 39, p. 105, 1926—Alta Mira, Tamaulipas (type in U. S. National Museum).

Laterallus ruber tamaulipensis Peters, Bds. World, 2, p. 191, 1934—near the Tamesi River, Tamaulipas; Van Tyne, Misc. Pub., Univ. Mich. Mus. Zool., 27, p. 14, 1935—Pacamón and Laguna del Zotz, Petén, Guatemala (crit.).

Range.—Eastern Mexico (marshes near the Tamesi River at Alta Mira, Tamaulipas; Tutla, Oaxaca) south to the Petén district, Guatemala.

Conover Collection.—4: Mexico (Tutla, Oaxaca, 4).³

****Laterallus ruber ruber* (Sclater and Salvin). RUDDY CRAKE.**

Corethrura rubra Sclater and Salvin, Proc. Zool. Soc. Lond., 1860, p. 300—"in provincia Verae Pacis," Guatemala (type, from Coban, in Salvin).

¹ After examining additional material we think it hardly worth while to maintain the distinction of *L. m. lateralis*, from Bahia north to Guiana. It cannot be denied that a good many of the northern specimens have the loreal and auricular regions somewhat paler and more buffy (less gray), but exceptions are frequent, and even one (out of two) from Supenaam has these parts just as decidedly gray as others from Paraguay. Pinto, who had a good series from Bahia to São Paulo, likewise considers further subdivision unwarranted. In any case, *C. m. macconnelli* is synonymous with *C. lateralis*, specimens from the two type localities being indistinguishable.

Additional material examined.—Paraguay: Bernalcué, east of Asunción, 1.—Argentina: Barracas al Sud, Buenos Aires, 1; Santa Barbara, 1.—Brazil: Igarapé-Assú, Pará, 1; Santa Philomena, Piauhý, 1; Bahia, 10; Rio de Janeiro, 2; Cachoeira, São Paulo, 1; Paraná, 1; Santa Catharina, 1.—British Guiana: Supenaam, 2.

² *Laterallus ruber tamaulipensis* (Nelson): Similar to *L. r. ruber*, but with longer, distinctly heavier bill; color duller, less rufous, and chestnut area above restricted to a collar of varying width. Wing (male), 75; tail, 33; bill, 21.

This form is stated by Van Tyne to range into the Petén region of Guatemala. A male from Laguna del Zotz, this author explains, is clearly referable to *tamaulipensis*, while a female from the same locality is not distinguishable from typical *ruber*. Two other males from Pacamón are intermediate between the two races. More information about these birds seems badly needed.

³ Of these four specimens (received after the volume has gone to press) three, sexed as males, have the chestnut area of the upper parts restricted to the mantle, while the fourth, sexed as a female, has the chestnut area above brighter and extending over the whole back and the upper wing and tail coverts. It would seem, therefore, that there is probably a sexual difference in color which should be taken into account when distinguishing the different races.

Godman Collection, now in British Museum); idem, *Ibis*, 1860, p. 277—Coban, Vera Paz.

Porzana rubra Sclater and Salvin, *Exot. Orn.*, p. 31, pl. 16, 1867—Coban and Choctum, Vera Paz; iidem, *Proc. Zool. Soc. Lond.*, 1868, p. 452—Guatemala (monog.); Salvin, *Ibis*, 1889, p. 378; 1890, p. 89—Cozumel Island.

Creciscus ruber Sharpe, *Cat. Bds. Brit. Mus.*, 23, p. 143, 1894—Cozumel Island, British Honduras, and Guatemala (Coban, Choctum, Lake Dueñas); Salvin and Godman, *Biol. Centr.-Amer.*, Aves, 3, p. 326, 1903—same localities; Cole, *Bull. Mus. Comp. Zool.*, 50, p. 145, 1906—Xbac, Yucatan.

Creciscus ruber ruber Peters, *Bull. Mus. Comp. Zool.*, 69, p. 407, 1929—Lancetilla, Honduras; Griscom, *Bull. Amer. Mus. N. H.*, 64, p. 122, 1932—Secanquim, Guatemala; Stone, *Proc. Acad. Nat. Sci. Phila.*, 84, p. 302, 1932—Lancetilla and "Omoa," Honduras.

Laterallus ruber ruber Peters, *Bds. World*, 2, p. 191, 1934 (range).

Range.—Yucatan Peninsula (Xbac), British Honduras (Belize), Guatemala (except Petén), northern Honduras (Lancetilla), and Cozumel Island.¹

Conover Collection.—1: Guatemala (Bobos, Dept. Izabal, 1).

***Laterallus ruber ruberrimus* (Miller and Griscom).² NICARAGUAN CRAKE.**

Creciscus ruberrimus Miller and Griscom, *Amer. Mus. Nov.*, 25, p. 2, 1921—Jinotega, Nicaragua (type in the American Museum of Natural History, New York).

Laterallus ruber ruberrimus Peters, *Bds. World*, 2, p. 191, 1934 (range); Dickey and van Rossem, *Field Mus. Nat. Hist.*, Zool. Ser., 23, p. 161, 1938—San Sebastián, El Salvador.

Range.—Known from Jinotega in north-central Nicaragua and San Sebastián, El Salvador.

***Laterallus fasciatus* (Sclater and Salvin).³ HAUXWELL'S CRAKE.**

Porzana fasciata Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1867, p. 981, pub. early in 1868—Pebas, Chamucuros, and Ucayali River, Peru (type, from Pebas, in Salvin-Godman Collection, now in British Museum).

¹ Two additional specimens from Coban, Verapaz, examined.

² *Laterallus ruber ruberrimus* (Miller and Griscom): Similar to *L. r. ruber*, but with shorter, relatively stouter bill; the rufous of the mantle extended over the whole upper parts including the wing coverts, and considerably deeper chestnut in tone; primaries and tail blackish instead of fuscous. Wing (adult female), 79; tail, 36; bill, 18 mm.

³ *Micropygia sclateri* Bonaparte (*Compt. Rend. Acad. Sci. Paris*, 43, p. 599, 1856) described as "media," cannot be regarded as anything but a *nomen nudum*. The original specimen from Peru, which is now in the collection of the Academy of Natural Sciences at Philadelphia, belongs to the above species (cf. Salvin, *Ibis*, 1874, p. 320; Stone, *Proc. Acad. Nat. Sci. Phila.*, 51, p. 12, 1899).

Porzana hauxwelli Sclater and Salvin, Exot. Orn., p. 105, pl. 53, July 1, 1868—new name for *Porzana fasciata* Sclater and Salvin¹ (monog.); iidem, Proc. Zool. Soc. Lond., 1868, p. 453—Ucayali, Chamicuros, and Pebas, Peru (monog.); iidem, l.c., 1873, p. 308—Sarayacu, Pebas, and Chamicuros; Taczanowski, Orn. Pér., 3, p. 324, 1886—Peru (Sarayacu, Pebas, Chamicuros); Hellmayr, Nov. Zool., 14, p. 89, 1907—Teffé, Rio Solimões, Brazil.

Corethrura sp. Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 200—Sarayacu, Rio Ucayali, Peru.

Anurolimnas hauxwelli Sharpe, Cat. Bds. Brit. Mus., 23, p. 88, 1894—Chamicuros, Pebas, Iquitos, and Sarayacu, Peru; Ihering, Cat. Faun. Braz., 1, p. 29, 1907—Pebas and "Obidos," errore; Snethlage, Bol. Mus. Goeldi, 8, p. 71, 1914—Bom Lugar, Rio Purús, Brazil; Chapman, Bull. Amer. Mus. N. H., 36, p. 218, 1917—La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 177, 1926 (not yet recorded from eastern Ecuador).

Creciscus hauxwelli Snethlage, Journ. Orn., 56, p. 23, 1908—Bom Lugar, Rio Purús, Brazil.

Laterallus hauxwelli Peters, Bds. World, 2, p. 192, 1934 (range).

Range.—Tropical zone of Upper Amazonia from the base of the east Colombian Andes south to northeastern Peru and northwestern Brazil (Teffé, Rio Solimões; Bom Lugar, Rio Purús).²

****Laterallus levraudi* (Sclater and Salvin).³ LEVRAUD'S CRAKE.**

Porzana levraudi Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 452, pl. 35—vicinity of Caracas, Venezuela (type in Paris Museum); iidem, l.c., 1873, p. 512—near Caracas.

Creciscus levraudi Sharpe, Cat. Bds. Brit. Mus., 23, p. 142, 1894—Venezuela.

Laterallus levraudi Peters, Bds. World, 2, p. 191, 1934 (range).

Range.—Northern Venezuela (around Caracas and Lake Valencia).

Field Museum Collection.—1: Venezuela (Lake Valencia, 1).

***Laterallus viridis brunescens* Todd.⁴ BROWNISH-BACKED CRAKE.**

¹ *Porzana hauxwelli* was proposed as a substitute name for *Porzana fasciata* Sclater and Salvin, considered, without reason, to be preoccupied by *Rallina fasciata* Raffles, 1822, member of a different genus.

² Specimens from various localities agree well together.

Material examined.—Colombia: "Bogotá," 1.—Peru: Pebas, 2; Juanjui, lower Huallaga, 1.—Brazil: Teffé, Rio Solimões, 1; Bom Lugar, Rio Purús, 1.

³ *Laterallus levraudi* (Sclater and Salvin): Closest to *L. m. melanophaius*, but sides of body and flanks vinous chestnut instead of barred with black and white. Upper parts olive brown, under tail coverts, sides of face and of the body vinous chestnut; middle of throat, breast, and belly white. Differs from *L. ruber* by having the mantle olive brown, not chestnut, and the middle of throat, breast, and belly white. Wing, 81; tarsus, 31; bill, 20.

⁴ *Laterallus viridis brunescens* Todd: Very similar to *L. v. viridis*, but the general color of the upper parts decidedly more brownish, less olive; pileum

Laterallus viridis brunnescens Todd, Proc. Biol. Soc. Wash., 45, p. 216, 1932—El Tambor, Santander, Colombia (type in Carnegie Museum, Pittsburgh, examined); Peters, Bds. World, 2, p. 191, 1934—Colombia west of the eastern Andes.

Porzana cayennensis (not *Rallus cayennensis* Gmelin) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 545—Remedios, Antioquia, Colombia (nest and eggs descr.).

Creciscus cayanensis (not *Rallus cayanensis* Boddaert) Sharpe, Cat. Bds. Brit. Mus., 23, p. 143, 1894—part, spec. i-l, Remedios and Bogotá, Colombia.

Range.—Tropical zone of Colombia west of the eastern Andes (Magdalena Valley and its affluent, Rio Ité [Remedios], etc.).

****Laterallus viridis viridis* (P. L. S. Müller). CAYENNE CRAKE.**

Rallus viridis P. L. S. Müller, Natursyst., Suppl., p. 120, 1776—based on “Râle, de Cayenne” Daubenton, Pl. Enl., pl. 368; Cayenne.

Rallus cayanensis Boddaert, Tabl. Pl. Enl., p. 22, Dec., 1783—based on Daubenton, Pl. Enl., pl. 368; Cayenne.

Rallus cayennensis Gmelin, Syst. Nat., 1, (2), p. 718, 1789—based on “Râle, de Cayenne” Daubenton, Pl. Enl., pl. 368, and “Râle à ventre roux, de Cayenne” Daubenton, l.c., pl. 753; Cayenne.

Rallus kiolo Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 556, 1819—based on Daubenton, Pl. Enl., pls. 368, 753; Cayenne.

Crex aurita J. E. Gray, Zool. Misc., 1, p. 13, 1831—“South America” (cotypes in British Museum).

Gallinula pileata Wied, Beitr. Naturg. Bras., 4, (2), p. 802, 1833—Rio Espirito Santo, eastern Brazil (cotypes in Wied Collection in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 271, 1889); Tschudi, Faun. Peru., Orn., p. 302, 1846—Peru.

Gallinula ecaudata Swainson, Anim. Menag., p. 348, Dec. 31, 1837—no locality stated (type in coll. of W. Swainson).

Rallus poliotis Temminck, Nouv. Rec. Pl. Col., Tabl. méth., p. 98, 1839—based on “Râle à ventre roux, de Cayenne” Daubenton, Pl. Enl., pl. 753; Cayenne.

Crex facialis Tschudi, Arch. Naturg., 9, (1), p. 388, 1844—“in sylvis Peruanis calidis” (descr. of young; type in Neuchâtel Museum; cf. Berlepsch and Hellmayr, Journ. Orn., 53, p. 19, 1905); idem, l.c., 10, (1), p. 313, 1844—Peru; idem, Faun. Peru., Orn., p. 301, 1846—montañas of central Peru.

not so dark; sides of head isabella color rather than gray; under parts lighter rufous.

After examining the type and three (fairly fresh) “Bogotá” skins, the senior author cannot but recognize the Colombian form, although it varies individually just as much as the nominate race does. But taken as a whole, the four specimens may be separated by the above characters from a large series of typical *viridis*. An old “Bogotá” skin in Field Museum can be matched by numerous individuals from Amazonia, and we presume it came from the eastern base of the east Colombian Andes, where *L. v. viridis* may be expected to occur.

- Corethrura cayennensis* Sclater, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quixos, Ecuador.
- Ortygometra cayennensis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 386, 1856—middle Brazil and Guiana.
- Porzana cayennensis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—Pará; iidem, l.c., 1868, p. 451—Cayenne, Pará, and eastern Brazil (monog.); iidem, l.c., 1873, p. 308—Xeberos, Peru; Taczanowski, Orn. Pér., 3, p. 323, 1886—Peru (Monterico; Xeberos, "Ucayali"); Salvin, Ibis, 1886, p. 176—Merumé Mountains and Roraima, British Guiana; Riker and Chapman, Auk, 8, p. 163, 1891—Santarém, Brazil.
- Porzana cayenensis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 754—Xeberos, Peru; Pelzeln, Orn. Bras., 3, p. 316, 1870—Barra do Rio Negro [= Manáos], Pará, and Engenho do Gama (Matto Grosso), Brazil.
- Porzana viridis* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 559—Amable Maria, Peru.
- Porzana facialis* Taczanowski, Orn. Pér., 3, p. 324, 1886 (descr. of type).
- Rufirallus cayenensis* Allen, Bull. Amer. Mus. N. H., 5, p. 150, 1893—Chapada, Matto Grosso.
- Creciscus cayenensis* Sharpe, Cat. Bds. Brit. Mus., 23, p. 143, 1894—part, spec. a-h, m, Pará, Merumé Mountains, Roraima, and Xeberos; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 184, 1904—Saint Georges d'Oyapock, French Guiana; Salvadori, Riv. Ital. Orn., 4, p. 3, 1918 (crit.).
- Creciscus facialis* Sharpe, Cat. Bds. Brit. Mus., 23, p. 145, 1894—Peru (descr. of type).
- Creciscus viridis subrufescens* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 49—La Merced, Chanchamayo, Peru (type in Mus. Branicki, now in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 103, 1927).
- Creciscus viridis facialis* Berlepsch and Hellmayr, Journ. Orn., 53, p. 19, 1905 (crit.); Berlepsch and Stolzmann, Orn. 13, p. 102, 1906—Santa Ana, Urubamba, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 48, 1921—Santa Ana.
- Creciscus viridis* Hellmayr, Nov. Zool., 12, p. 304, 1905—Igarapé-Assú, Pará; Ihering, Cat. Faun. Braz., 1, p. 31, 1907—Ilha Grande, Rio de Janeiro (spec. examined); Berlepsch, Nov. Zool., 15, p. 300, 1908—Cayenne and Roche-Marie, French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 73, 1914—Pará, Benevides, Rio Guamá (Ourém), Cussary, and Rio Tapajóz (Boim), Brazil; Chubb, Bds. Brit. Guiana, 1, p. 74, 1916—Ituribisci, Kamakabra Creek, Bonasika, Makauria, Abary, Anarica, lower Mazaruni, Georgetown, Merumé Mountains, and Roraima; Beebe, Trop. Wild Life, 1, pp. 127, 216 (fig. 64), 1917—Bartica Grove, British Guiana (nest and eggs descr.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 42, 1918—Paramaribo and Rijdsdijkweg, Surinam; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 252, 1930—Huachipa and Buena Vista (Rio Chinchao), Huánuco, Peru (crit.).
- Creciscus viridis viridis* Hellmayr, Nov. Zool., 13, p. 385, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 412, 1907—Humaytá, Rio Madeira;

idem, l.c., 17, p. 422, 1910—Humaytá; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará (Pará, Igarapé-Assú, Santo Antonio); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 152, 1928—Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 483, 1929—Maranhão (Ponto, Canella); Fazenda Inhúma, Alto Parnahyba; Naumburg, Bull. Amer. Mus. N. H., 60, p. 73, 1930—Urucúm, Matto Grosso.

Creciscus pileatus Salvadori, Riv. Ital. Orn., 4, p. 6, 1918—Bahia to Rio de Janeiro (crit.).

Laterallus viridis viridis Peters, Bds. World, 2, p. 192, 1934 (range).

Range.—Eastern Ecuador (Quijos) and eastern Peru; Venezuela (Roraima); the Guianas south over the whole of Brazil to Matto Grosso and Rio de Janeiro (Ilha Grande).¹

Field Museum Collection.—2: Peru (Huachipa, 1); Brazil (Ponto, Canella, Maranhão, 1).

Conover Collection.—31: Peru (Huachipa, 1; Buena Vista, Rio Chinchao, 1); British Guiana (River Caramang, 2); Brazil (Manacapurú, Amazonas, 4; Fazenda Inhúma, Alto Parnahyba, Maranhão, 2; Buenos Aires, Rio Acará, 4; Resacca, Rio Capim, 1; Lago Cuipeua, Pará, 6; Boim, Rio Tapajóz, 4; Tauary, Rio Tapajóz, 3; Caxiricatuba, Rio Tapajóz, 3).

****Laterallus leucopyrrhus* (Vieillot). RED-AND-WHITE CRAKE.**

Rallus leucopyrrhus Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 550, 1819—based on "Ypacahá pardo-acanelado y blanco" Azara, No. 375; Paraguay.

Corethrura leucopyrrha Hartlaub, Syst. Ind. Azara, p. 24, 1847—Paraguay.

Corethura leucopyrrha Burmeister, Journ. Orn., 8, p. 262, 1860—near Tucumán (merely seen); idem, Reise La Plata St., 2, p. 505, 1861—Manantial de Marlopa, near Tucumán.

¹ After once more comparing five adults from Peru with a dozen Guianan skins we are bound to agree with Zimmer's contention that *C. v. facialis* cannot satisfactorily be separated. While the type of *C. v. subrufescens* and an adult specimen from Huayabamba have the crown remarkably pale rufous and differ, besides, by duller, more grayish olive dorsal surface and lighter rufous under parts, other Peruvian examples are much browner above, with the cap darker, and deeper rufous underneath, and do not diverge from various Guianan individuals picked at random. The few Amazonian specimens at hand do not seem to be distinguishable either. Birds from eastern Brazil (Maranhão to Bahia), as a rule, have the crown of a somewhat darker rufous, and there is a similar tendency in the tone of the under parts. However, there is much individual variation, and a female from Ilha Grande, Rio de Janeiro, is again a good match for the Guianan average. We do not, therefore, advocate the recognition of an eastern race (*C. viridis pileatus*).

Additional material examined.—French Guiana: Oyapock River, 2; Cayenne, 4.—Dutch Guiana: near Paramaribo, 4; Kwata, 1.—British Guiana: Demerara, 1.—Brazil: Pará, 3; Manãos, 2; Humaytá, Rio Madeira, 1; Engenho do Gama, Rio Guaporé, Matto Grosso, 1; São Lourenço, Pernambuco, 2; Bahia, 8; Ilha Grande, Rio de Janeiro, 1.—Peru: Huayabamba, 1; La Merced, Chanchamayo, 1.

Porzana leucopyrrha Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 454—Paraguay, southern Brazil, and Tucumán (ex Burmeister) (monog.); iidem, Exot. Orn., p. 111, pl. 56, 1868—Paraguay, Brazil (Minas Geraes? and Rio Grande do Sul), and Tucumán; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 109, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Berlepsch, Journ. Orn., 35, p. 35, 1887—Rio Pilcomayo, Paraguay; Sclater and Hudson, Arg. Orn., 2, p. 154, 1889—Tucumán.

Creciscus leucopyrrhus Sharpe, Cat. Bds. Brit. Mus., 23, p. 142, 1894; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 148, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 5, "1901," p. 286, 1902—Iguapé, São Paulo; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 215, 1902—Manantial de Marlopa, Tucumán (ex Burmeister); idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—Lagunas de Malvinas, Tucumán; Ihering, Cat. Faun. Braz., 1, pp. 31, 406, 1907—São Paulo (Iguapé, Ypiranga); Hartert and Venturi, Nov. Zool., 16, p. 258, 1909—Barracas al Sud, Buenos Aires (breeding; eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910—Buenos Aires (Barracas al Sud) and Tucumán; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Marelli, Mem. Min. Obr. Públ. for 1922—23, p. 601, 1924—Barracas al Sud; Pereyra, El Hornero, 4, p. 414, 1931—San Isidro, Buenos Aires (breeding, nest, and eggs descr.).

Laterallus leucopyrrhus Peters, Bds. World, 2, p. 192, 1934 (range).

Range.—Southeastern Brazil,¹ in states of Rio de Janeiro (Therezopolis), São Paulo (Iguapé), and Rio Grande do Sul (Taquara do Mundo Novo); Paraguay (Villa Rica; Rio Pilcomayo); northern Argentina (Manantial de Marlopa and Lagunas de Malvinas, Tucumán; Barracas al Sud and San Isidro, Buenos Aires).²

Field Museum Collection.—1: Brazil (Therezopolis, Rio de Janeiro, 1).

Conover Collection.—3: Paraguay (Villa Rica, 3).

Genus MICROPYGIA Bonaparte

Micropygia Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 599, Sept., 1856—type, by virtual monotypy,³ *Micropygia schomburgi* "Cabanis" (= *Crex schomburgkii* Schomburgk).

Thyrorhina Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 458—type, by monotypy, *Crex schomburgkii* "Cabanis" [= Schomburgk].

¹ The locality "Minas Geraes" attached to a specimen in the Berlin Museum is open to doubt.

² Six specimens from Buenos Aires (Barracas al Sud) and three from Rio Grande do Sul (Taquara do Mundo Novo) agree with a single adult from Paraguay (Rio Pilcomayo). This is a very scarce species in collections, although it is stated to breed commonly in the vicinity of Buenos Aires.

³ The other two included species, *M. verreauxi* Bonaparte and *M. sclateri* Bonaparte, are nomina nuda.

Micropygia schomburgkii schomburgkii (Schomburgk). SCHOMBURGK'S CRAKE.

Crex schomburgkii (Cabanis MS.) Schomburgk, Reisen Brit. Guiana, 2, p. 245, 1848—Our Village, on the upper Kukenaa River, Terr. Yuruari, Venezuela (type in Berlin Museum); Cabanis, in Schomburgk, l.c., 3, "1848," p. 760, 1849 (listed without description or locality); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 169—Caripé [Bermúdez], Venezuela.

Ortygometra schomburgki Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 40, 1857—Cayenne.

Thyrorhina schomburgki Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 458—British Guiana and Venezuela (Caripé, Caracas) (monog.); Salvin, Ibis, 1886, p. 176—Merumé Mountains and Roraima, British Guiana; Sharpe, Cat. Bds. Brit. Mus., 23, p. 125, 1894—British Guiana (Roraima, Merumé Mountains) and Venezuela (Caripé); Ihering, Cat. Faun. Braz., 1, p. 30, 1907—part, Guiana and Venezuela; Berlepsch, Nov. Zool., 15, p. 299, 1908—Cayenne; Chubb, Bds. Brit. Guiana, 1, p. 70, 1916—Mount Roraima, Abary River, Ireng River, and Merumé Mountains.

Micropygia schomburgkii schomburgkii Peters, Bds. World, 2, p. 192, 1934 (range).

Range.—Venezuela (vicinity of Caracas; Caripé, Sucre; upper Kukenaa River, Terr. Yuruari); British Guiana (Abary River, Ireng River, Merumé Mountains, Roraima); French Guiana (Cayenne).¹

Micropygia schomburgkii chapmani (Naumburg).² CHAPMAN'S CRAKE.

Thyrorhina schomburgkii chapmani Naumburg, Bull. Amer. Mus. N. H., 60, p. 72, 1930—Morinho de Lyra, Matto Grosso, Brazil (type in the American Museum of Natural History, New York).

Thyrorhina schomburgki (not *Crex schomburgkii* Schomburgk) Pelzeln, Orn. Bras., 3, pp. 317, 459, 1870—Goyáz (Borda do Matto do Paranyhyba),

¹ *Material examined*.—British Guiana: Roraima, 3.—Venezuela: vicinity of Caracas, 1.

² *Micropygia schomburgkii chapmani* (Naumburg): Similar to the nominate race, but with slightly longer wings; dorsal surface paler, Saccardo's umber rather than sepia, with hardly any black and white spots on the upper tail coverts. Wing (three specimens), 79–82; bill, 13–14.

Most of the differences mentioned by the describer, such as the longer bill, the smaller size of the spotting above, and the absence of spots on lower back and rump, are not corroborated by the three Brazilian specimens before us. They have the bills by no means longer than in three from Roraima, and the rump is just as profusely spotted with black and white as in the latter. Size and shape of the white dorsal spots and the amount of their black edging vary a good deal individually. The Borda do Matto bird has even more white on the throat than Roraima specimens, whereas the Bahia examples have merely a large white chin spot. The study of larger series of this scarce crane is desirable.

Material examined.—Brazil: Borda do Matto, Rio Paranyhyba, Goyáz, 1; Bahia, 2.

Matto Grosso (river journey from "Portofeliz" to Cuyabá), and Bahia, Brazil (spec. examined); Ihering, Cat. Faun. Braz., 1, p. 30, 1907—part, Goyáz and Matto Grosso.

Micropygia schomburgkii chapmani Peters, Bds. World, 2, p. 192, 1934—Brazil.

Range.—Brazil, from Bahia west through Goyáz (Borda do Matto do Rio Paranyba) to Matto Grosso (Morinho Lyra; between Porto Feliz and Cuyabá).

Genus COTURNICOPS G. R. Gray

Coturnicops G. R. Gray,¹ Cat. Gen. Subgen. Bds., p. 120, 1855—type, by orig. desig., "*Rallus*" [= *Fulica*] *noveboracensis* Gmelin.

Ortygops Heine, in Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 320, 1890—new name for *Coturnicops* "Bonaparte" [= G. R. Gray].

**Coturnicops noveboracensis noveboracensis* (Gmelin). YELLOW RAIL.

Fulica noveboracensis Gmelin, Syst. Nat., 1, (2), p. 701, 1789—based on "Yellow-breasted Gallinule" Pennant, Arct. Zool., 2, p. 491; New York.

Ortygops noveboracensis Sharpe, Cat. Bds. Brit. Mus., 23, p. 126, 1894.

Porzana noveboracensis Seton, Auk, 25, p. 71, 1908—Great Slave Lake.

Coturnicops noveboracensis Wood, Auk, 26, p. 1, 1909 (status in Michigan); Cooke, Bull. U. S. Dept. Agr., 128, p. 31, 1914 (distr., migr.); Grinnell, Bryant, and Storer, Game Bds. Calif., p. 301, 1918 (habits, range, Calif.); Bent, Bull. U. S. Nat. Mus., 135, p. 316, 1926 (life hist.); Walkinshaw, Auk, 56, p. 227, pl. 9, 1939 (full account of habits, distr. etc. in Michigan); Devitt, Auk, 56, p. 238, pl. 10, 1939—Ontario (breeding).

Coturnicops noveboracensis noveboracensis Peters, Bds. World, 2, p. 193, 1934 (range).

Coturnicops noveboracensis richi H. H. Bailey,² Bull. Bailey Mus. and Library Nat. Hist., Miami, Fla., 10, p. 1, 1935—Canton, Ohio (type in Bailey Collection, Bailey Museum and Library of Natural History, Miami, Fla.).

Coturnicops noveboracensis emersoni H. H. Bailey,² Bull. Bailey Mus. and Library Nat. Hist., Miami, Fla., 10, p. 3, 1935—Shandon, California (type in Museum of Vertebrate Zoology, Berkeley, Calif.).

Range.—Known to breed in Ontario, Michigan, North Dakota, and California. Occurs in breeding season from Nova Scotia, central

¹ First published as a nomen nudum by Bonaparte, Ann. Sci. Nat., (4), Zool., 1, p. 150, 1854.

² The characters given for these proposed races do not seem to hold on examination of the material in Field Museum. The color characters appear to be due to age or seasonal and individual variation. According to the describer, California birds are the smallest, but the largest birds examined were two males from that state.

Quebec, and southern Mackenzie south to Massachusetts, Ohio, Illinois, and Minnesota. Winters in California and the Gulf states.

Field Museum Collection.—6: Illinois (Lewiston, 1; Cicero, Cook County, 1; Mallard, 2); Massachusetts (Canton Meadow, 1); California (Point Reyes, 1).

Conover Collection.—5: South Carolina (Mount Pleasant, 1); Illinois (Putnam, Putnam County, 1; Mallard, Hancock County, 1); California (Point Reyes, Marin County, 2).

Coturnicops noveboracensis goldmani (Nelson).¹ MEXICAN YELLOW RAIL.

Porzana goldmani Nelson, Proc. Biol. Soc. Wash., 17, p. 151, 1904—Lerma, Mexico (type in U. S. National Museum, Biological Survey Collection); Cooke, Bull. U. S. Dept. Agr., 128, p. 31, 1914 (distr.).

Coturnicops noveboracensis goldmani Peters, Bds. World, 2, p. 193, 1934 (range).

Range.—Known only from the type locality (Lerma, Valley of Toluca, Mexico).

Coturnicops notata notata (Gould). MARKED RAIL.

Zapornia notata Gould, in Darwin, Zool. Voy. Beagle, Birds, Part 15, p. 132, pl. 48, March, 1841—Rio de la Plata, Argentina (shot on board the "Beagle"; type now in British Museum).

Porzana notata Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 456—Argentina and Patagonia (monog.); Selater, l.c., 1876, p. 255—at sea off Cape Santa María, Uruguay; Selater and Hudson, Arg. Orn., 2, p. 155, 1889—Argentina and Uruguay; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 406, 1890—Córdoba.

Ortygops notata Sharpe, Cat. Bds. Brit. Mus., 23, p. 128, 1894—Rio de la Plata and off Cape Santa María, Uruguay; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, Orn., p. 49, 1904—same localities; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910—Patagonia, Córdoba, and La Plata; Tremoleras, El Hornero, 2, p. 12, 1920—Durazno, Uruguay; (?) Bennett, Ibis, 1926, p. 309—near Stanley, Falkland Islands (April 25, 1921).

Ortigops notata Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 601, 1924—La Plata, Buenos Aires.

Coturnicops notata notata Peters, Bds. World, 2, p. 193, 1934 (range).

Range.—Uruguay (Durazno and off Cape Santa María) and northern Argentina (Rio de la Plata; Córdoba; Rio Negro, Patagonia); (?)accidental in the Falkland Islands (near Port Stanley, April 25, 1921).²

¹ *Coturnicops noveboracensis goldmani* (Nelson): Said to be generally similar to typical *noveboracensis* but darker, the wings, flanks, and rump being slaty blackish; white markings on back in the form of transverse spots; bill slender.

² The Marked Rail is one of the rarest neotropical birds. The type was shot on board the "Beagle" in the La Plata River, and an immature specimen was

Coturnicops notata duncani (Chubb).¹ DUNCAN'S RAIL.

Ortygops notata duncani Chubb, Bds. Brit. Guiana, 1, p. 74, pl. 3, fig. 2, 1916
—Abary River, British Guiana (type in British Museum).

Coturnicops notata duncani Peters, Bds. World, 2, p. 193, 1934—Abary River.
Range.—British Guiana (Abary River).

Genus **NEOCREX** Sclater and Salvin

Neocrex Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 457—type, by monotypy, *Porzana erythrops* Sclater.

Neocrex erythrops erythrops (Sclater). WESTERN RED-FACED CRAKE.

Porzana erythrops Sclater, Proc. Zool. Soc. Lond., 1867, p. 343, pl. 21—Lima, Peru (type in Salvin-Godman Collection, now in British Museum); Sclater and Salvin, l.c., 1868, p. 457—Lima (monog.); Sclater, l.c., 1869, p. 148—Lima; Taczanowski, l.c., 1877, p. 330—Lima; idem, Orn. Pér., 3, p. 325, 1886—Lima; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 395—Lima.

Neocrex erythrops Sharpe, Cat. Bds. Brit. Mus., 23, p. 163, 1894—part, spec. a, b, Lima; Ihering, Cat. Faun. Braz., 1, p. 31, 1907—part, Peru; Chubb, Ibis, 1919, p. 54—Eten, Lambayeque.

Neocrex erythrops erythrops Peters, Bds. World, 2, p. 194, 1934—part, Peru.

Range.—Pacific coast region of Peru from Lima to Lambayeque (Eten).²

***Neocrex erythrops olivascens** Chubb.³ EASTERN RED-FACED CRAKE.

caught alive at sea off Cape Santa María, Uruguay. A single example is recorded from Córdoba, while Tremoleras lists one from Durazno, Uruguay. D'Orbigny secured one in 1829 in "Patagonia," probably near Carmen de Patagonia, not far from the mouth of the Rio Negro. The Vienna Museum possesses an adult individual from an unknown locality. As the bird recorded by Bennett from near Port Stanley, Falkland Islands, was not preserved, its identity is perhaps open to doubt.

¹ *Coturnicops notata duncani* (Chubb), based on a single specimen from the Abary River (September, 1907), appears to differ by blacker coloration and pure white throat, the latter being streaked with black in the two skins of the nominate race examined by the authors.

² Nine specimens from Lima examined. A single adult in the Vienna Museum acquired from a dealer (Tucker in London), which agrees with Peruvian birds except in having whitish marginal edges to the lower breast feathers, probably is incorrectly labeled "Chile."

³ *Neocrex erythrops olivascens* Chubb: Similar to the nominate race, but under parts much darker, more slaty, with the throat not nearly so white, and dorsal surface somewhat darker brown.

The junior author, on comparing five Brazilian skins with four from Venezuela, fails to find any appreciable difference between the two sets.

Additional material examined.—Brazil: Bahia, 1; São Vicente, Matto Grosso, 3; unspecified, 1.—Venezuela: El Valle, Mérida, 1.—Argentina: Tapia, Tucumán, 1.

Neocrex erythrops olivascens Chubb, Bull. Brit. Orn. Cl., 38, p. 33, 1917—"Venezuela"=vicinity of Caracas (type in British Museum); Peters, Bds. World, 2, p. 194, 1934—Venezuela.

Porzana schomburgkii (not *Crex schomburgkii* Schomburgk) Schlegel, Mus. Pays-Bas, Ralli, p. 37, 1865—"Guyana."

Porzana erythrops (not of Sclater) Pelzeln, Orn. Bras., 3, p. 317, 1870—São Vicente, Matto Grosso, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 512—Caracas, Venezuela.

Neocrex erythrops Sharpe, Cat. Bds. Brit. Mus., 23, p. 163, 1894—part, spec. c, d, Valencia, Venezuela; Hartert, Nov. Zool., 8, p. 369 (in text), 1901—Mérida, Venezuela (crit.); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 215, 1902—vicinity of Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—near Tucumán City; Ihering, Cat. Faun. Braz., 1, p. 31, 1907—part, Matto Grosso, "Argentina," and Venezuela; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910—Tucumán; Sneath, Bol. Mus. Goeldi, 8, p. 73, 1914—Pará and Rio Jamundá (Faro), Brazil; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 40, 1922—Valle, Rio Mucujón, Mérida, Venezuela; Wetmore, Bull. U. S. Nat. Mus., 133, p. 125, 1926—Tapia, Tucumán.

Neocrex erythrops erythrops Naumburg, Bull. Amer. Mus. N. H., 60, p. 73, 1930—São Vicente, Matto Grosso (range excl. of Peru); Peters, Bds. World, 2, p. 194, 1934—part, Brazil and Tucumán.

Range.—Venezuela (El Valle, Rio Mucujón, Mérida; Lake of Valencia, Carabobo; vicinity of Caracas), Guiana (fide Schlegel), Brazil (Rio Jamundá, Faro; Pará; Rio Capim; Bahia; São Vicente, Matto Grosso), Paraguay (Horqueta), and northwestern Argentina (Tucumán).¹

Field Museum Collection.—1: Venezuela (Mérida, 1).

Conover Collection.—3: Venezuela (El Valle, Mérida, 1); Brazil, Pará (Resacca, Rio Capim, 1); Paraguay (Horqueta, 1).

****Neocrex erythrops colombianus* Bangs.² COLOMBIAN CRAKE.**

Neocrex colombianus Bangs, Proc. Biol. Soc. Wash., 12, p. 171, 1898—Palomina, Santa Marta Mountains, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf.

¹ Hudson (Proc. Zool. Soc. Lond., 1876, p. 105) records *Porzana erythrops* as breeding and abundant near Buenos Aires. Though he says the bird is known vernacularly as "Gallinetita," the species is not mentioned in "Argentine Ornithology" and has never been found again by anybody in the vicinity of Buenos Aires. Hudson's entry is no doubt due to misidentification and probably refers to some species of *Laterallus* (*leucopyrrhus* or *melanophaius*).

² *Neocrex erythrops colombianus* Bangs: Nearest to *N. e. olivascens*, but differs by lacking the blackish bars on axillars and under wing coverts; by having plain cinnamon under tail coverts and brownish flanks (instead of both being barred with sooty and white); and by having the red base of the bill merely suggested.

Additional material examined.—Colombia: San Antonio, western Andes, 1.—Ecuador: Pambilár, 1.

Bangs, Bull. Mus. Comp. Zool., 70, p. 170, 1930); idem, l.c., 21, p. 158, 1908—San Antonio, western Andes, Colombia (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 178, 1922—Heights of Chirua, Colombia; Chapman, Bull. Amer. Mus. N. H., 55, p. 178, 1926—western Ecuador.

Neocrex uniformis Hartert, Nov. Zool., 8, p. 369, 1901—Pambilár and San Javier, Prov. Esmeraldas, Ecuador (type, from Pambilár, in the Tring Collection, now in the American Museum of Natural History, New York, examined).

Neocrex columbianus Chapman, Bull. Amer. Mus. N. H., 36, p. 219, 1917—Barbacoas, Nariño, Colombia.

Neocrex erythrops columbianus Peters, Bds. World, 2, p. 194, 1934 (range).

Range.—Santa Marta region of northern Colombia, and Pacific slope of Colombia and Ecuador south to the Rio Chimbo.

Conover Collection.—3: Ecuador (Santo Domingo de los Coronados, 2; Puente de Chimbo, 1).

Genus PORPHYRIOPS Pucheran

Porphyriops Pucheran, Rev. Zool., 8, p. 278, 1845—type, by orig. desig., *Fulica crassirostris* Gray.

Hydroicica Cabanis, Arch. Naturg., 13, (1), p. 351, 1847—type, by orig. desig., *Rallus melanops* Vieillot.

**Porphyriops melanops crassirostris*. (J. E. Gray).¹ CHILEAN LITTLE WATERHEN.

Fulica crassirostris J. E. Gray, in Griffith's Anim. Kingd., Birds, 3, p. 542 and plate,² 1829—"South America"—Chile (type in British Museum examined).

Gallinula crassirostris Darwin, Zool. Beagle, 3, p. 133, 1841—part, Valparaiso, Chile; Fraser, Proc. Zool. Soc. Lond., 11, p. 118, 1843—Chile (egg descr.); Yarrell, l.c., 15, p. 54, 1847—Chile (egg descr.); Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 436, pl. 9, 1847—Chile (monog.); Boeck, Naumannia, 1855, p. 510—Valdivia; Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 196, 1855—Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 314, 1860—Santiago (breeding habits); Frauenfeld, Verh. Zool. Bot. Ges. Wien, 10, Abhandl., p. 639, 1860—Lake Aculeo, Santiago; Pelzeln, Reise Novara, Zool., 1, Vogel, p. 135, 1865—Chile (egg descr.); Schlegel, Mus. Pays-Bas, Ralli, p. 49, 1865—Santiago and Valdivia, Chile; Philippi, Anal.

¹ *Porphyriops melanops crassirostris* (J. E. Gray) merely differs from the nominate race by slightly larger size and generally thicker, though not longer bill. Wing (male), 126–136; tail, 57–64; bill, 28–32.

Additional material examined.—Chile: Coquimbo, 1; Peñaflo, Santiago, 1; Santiago, 1; San Carlos de Chillan (Junquillos), Nuble, 1; Finfiñ, Temuco, Cautín, 3; Maquehue, Temuco, Cautín, 1; Rio Contra, Valdivia, 1; Desagué, Llanquihue, 2; unspecified, 8.

² The binomial name occurs on the plate, while in the text the species is called "Thick-billed Coot."

Univ. Chile, 31, p. 278, 1868—Chile; Waugh and Lataste, Act. Soc. Scient. Chili, 4, p. lxxxviii, 1894—Peñaflor, Santiago; Lataste, l.c., 5, p. lxii, 1895—San Carlos (Junquillos), Nuble; Housse, Rev. Chil. Hist. Nat., 29, p. 150, 1925—San Bernardo, Santiago.

Ortygometra femoralis (not *Crex femoralis* Tschudi) Hartlaub, Naumannia, 3, p. 216, 1853—Valdivia.

Hydroiccia melanops (not *Rallus melanops* Vieillot) Sclater, Proc. Zool. Soc. Lond., 1867, pp. 333, 339—Santiago.

Porphyriops crassirostris Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 461—Chile (monog.).

Porphyriops melanops Reed, Anal. Univ. Chile, 49, p. 565, 1877—Cauquenes, Colchagua; Salvin, Proc. Zool. Soc. Lond., 1883, p. 428—Coquimbo Lagoon; Sharpe, Cat. Bds. Brit. Mus., 23, p. 183, 1894—part, spec. h-t, Chile (Santiago, Coquimbo); Reed, Anal. Univ. Chile, 93, p. 209, 1896—Chile; Lane, Ibis, 1897, p. 300—Valdivia; Schalow, Zool. Jahrb., Suppl., 4, p. 668, 1898—Villarica; Barros, Rev. Chil. Hist. Nat., 23, p. 17, 1919—Nilahue, Curicó; Housse, l.c., 28, p. 52, 1924—Isla La Mocha, Arauco; Jaffuel and Pirion, l.c., 31, p. 113, 1927—Marga-Marga, Valparaíso; Bullock, l.c., 33, p. 203, 1929—Angol, Malleco; Kuroda, Tori, 8, p. 147, 1933—San Borbonol Perquenco, Chile.

Porphyriops melanops melanops Chapman, Bull. Amer. Mus. N. H., 33, p. 169 (in text), 1914—Temuco, Cautín (crit.); Paessler, Journ. Orn., 70, p. 434, 1922—Coronel (breeding habits); (?) Wetmore, Univ. Calif. Pub. Zool., 24, p. 424, 1926—Arroyo Las Bayas, Rio Negro, and Rio Epuyén, Chubut, Argentina.

Porphyriops melanops crassirostris Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 359, 1932—Coquimbo to Llanquihue, Chile (crit., meas.); Peters, Bds. World, 2, p. 199, 1934 (range); Bullock, Rev. Chil. Hist. Nat., 39, p. 245, 1935—Isla La Mocha.

Range.—Central Chile, from Coquimbo south to Llanquihue; (?) and adjacent parts of Argentina (western Rio Negro and western Chubut).

Field Museum Collection.—1: Chile (Laguna de Pudahuel, Santiago, 1).

Conover Collection.—6: Chile (Los Niños, 1; Huaquen, Aconcagua, 1; Rio Petorca, Aconcagua, 2; Angol, Bio Bio, 1; Lantaro, Cautín, 1).

****Porphyriops melanops melanops* (Vieillot). LITTLE WATERHEN.**

Rallus melanops Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 553, 1819—based on "Ypacahá cara negra" Azara, No. 373; Paraguay.

Gallinula crassirostris (not *Fulica crassirostris* Gray) Darwin, Zool. Beagle, 3, p. 133, 1841—part, on the banks of the La Plata.

Ortygometra melanops Burmeister, Journ. Orn., 8, p. 261, 1860—Rio Uruguay; idem, Reise La Plata St., 2, p. 505, 1861—Rio Uruguay; Doering, Period. Zool. Arg., 1, p. 256, 1874—Barrancas, Rio Guayquiraro, Corrientes.

Porphyriops leucopterus Salvadori, Atti Soc. Ital. Sci. Nat., 8, p. 382, 1865—Argentina, probably Buenos Aires (type in Turin Museum examined).

Porphyriops melanops Scater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 461—part, Paraguay and Bolivia; idem, l.c., 1869, p. 634—Conchitas, Buenos Aires (crit.); Pelzeln, Orn. Bras., 3, p. 318 (note 1), 1870—part, Montevideo and Brazil; Durnford, Ibis, 1876, p. 163—100 miles south of Buenos Aires; idem, l.c., 1877, p. 195—Prov. Buenos Aires; Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 641—Bolivia (d'Orbigny); Scater and Hudson, Arg. Orn., 2, p. 156, 1889—marshes of the La Plata; Kerr, Ibis, 1892, p. 149—near Rio Pilcomayo; Sharpe, Cat. Bds. Brit. Mus., 23, p. 182, 1894—part, spec. d-g, Pelotas, Rio Grande do Sul, Brazil, and Espartillar, Buenos Aires; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 148, 1899—São Lourenço, Rio Grande do Sul; Lönnberg, Ibis, 1903, p. 459—Tatarenda, Tarija, Bolivia (crit.); Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—Lagunas de Malvinas, Tucumán; Ihering, Cat. Faun. Braz., 1, p. 32, 1907—São Sebastião, São Paulo, and Piratiny, Rio Grande do Sul, Brazil; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910—Córdoba, Tucumán, and Buenos Aires; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 96, 1910—Joazeiro, Bahia, Brazil; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Gibson, Ibis, 1920, p. 41—Cape San Antonio, Buenos Aires (habits); Tremoleras, El Hornero, 2, p. 12, 1920—Uruguay (Montevideo, Canelones, Maldonado, Rocha); Arribáizaga, l.c., 2, p. 90, 1920—Chaco; Dabbene, l.c., 2, p. 133, 1920—Rosas, Buenos Aires (pull. descr.); Daguerre, l.c., 2, p. 260, 1922—Rosas; Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 81, 1923—La Rioja; Pereyra, l.c., 3, p. 161, 1923—Moreno, F.C.O., and Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 601, 1924—Prov. Buenos Aires; Wilson, El Hornero, 3, p. 351, 1926—General López, southern Santa Fé; Smyth, l.c., 4, p. 5, 1927—Cacharí, Buenos Aires, and Santa Elena, Entre Ríos (egg descr.).

Ortigometra melanops Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 406, 1890—Córdoba (breeding).

P[orphyriops] guttatus (Lichtenstein MS.) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 231, 1924—substitute name for *P. melanops* (Vieillot).

Porphyriops melanops melanops Peters, Bds. World, 2, p. 199, 1934 (range).

Range.—Eastern Bolivia (Chiquitos; Tatarenda, Tarija); northern Argentina south to La Rioja, Córdoba, and Buenos Aires; Paraguay; Uruguay; eastern Brazil (São Lourenço, Piratiny, and Asylo Pella, Rio Grande do Sul; São Sebastião, São Paulo; Joazeiro, Bahia).¹

Conover Collection.—5: Paraguay (240 km. west of Puerto Casado, 3); Argentina (Concepción, Tucumán, 1; Lagunas, Tucumán, 1).

¹ The few Brazilian specimens examined are not separable from an Argentine series. The presence of white margins or spots to the outer web of the inner remiges, which induced Salvadori to describe *P. leucopterus*, is a purely individual character without geographical significance. We noticed it in a specimen from

****Porphyriops melanops bogotensis* Chapman.¹ BOGOTÁ LITTLE WATERHEN.**

Porphyriops melanops bogotensis Chapman, Bull. Amer. Mus. N. H., 33, p. 169, March 19, 1914—Savanna of Bogotá, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 219, 1917—Savanna of Bogotá and Anolaima, Colombia; Peters, Bds. World, 2, p. 199, 1934 (range).

Porphyriops leucopterus (not of Salvadori) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 175—Bogotá (crit.).

Porphyriops melanops (not *Rallus melanops* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 461—part, descr. and hab. Bogotá; (?) Taczanowski, Orn. Pér., 3, p. 326, 1886—part, Peru (ex Tschudi); Sharpe, Cat. Bds. Brit. Mus., 23, p. 182, 1894—part, spec. a-c, Bogotá.

(?) *Crex femoralis* Tschudi, Arch. Naturg., 9, (1), p. 388, 1843—Rio Tullumayo, Dept. Junín, Peru (type in Neuchâtel Museum); idem, l.c., 10, (1), p. 313, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 301, 1846—Peru.

Range.—Savanna of the Bogotá region in the eastern Andes of Colombia; (?) eastern Peru (Rio Tullumayo, Dept. Junín).

Conover Collection.—Colombia: 5 (Savanna of Bogotá, 5).

Genus GALLINULA Brisson

Gallinula Brisson, Orn., 1, p. 60; 6, p. 2, 1760—type, by tautonymy, "*Gallinula*" Brisson=*Fulica chloropus* Linnaeus.

****Gallinula chloropus cachinnans* Bangs.² FLORIDA GALLINULE.**

Joazeiro, Bahia, in two from Buenos Aires, and developed to the highest degree in a "Bogotá" skin.

Additional material examined.—Brazil: Joazeiro, Bahia, 1; São Lourenço, Rio Grande do Sul, 1; Asylo Pella, Rio Grande do Sul, 1.—Argentina: Buenos Aires, 1; Ajó, Buenos Aires, 4; Espartillar, Buenos Aires, 1; Carril, Dept. Saladillo, Buenos Aires, 1; off Colonia, Rio de la Plata, 2.—Uruguay: Montevideo, 1.

¹ *Porphyriops melanops bogotensis* Chapman: Similar to *P. m. melanops*, but axillars either wholly white or dusky at the base, never regularly barred, and interscapular region more or less suffused with chestnut. Wing (adult), 122–130; tail, 53–57; bill, 26.

While the lack of black bars on the axillars holds in the eight specimens examined, the coloration of the back is subject to considerable variation, only two having the interscapulars largely chestnut like the wing coverts, while the others are olive brown with very little rufous suffusion laterally, much as in *P. m. melanops*.

It is possible that *C. femoralis* Tschudi may prove to be an earlier name, for it seems much more likely that Peruvian birds are more nearly related to those from Colombia than to the Brazilian ones. Tschudi's description—vague as usual—might have been based upon an olive-backed example such as we have seen from Bogotá. It is really strange that the species has never been found again in Peru since Tschudi's time.

Additional material examined.—Colombia: "Bogotá," 3.

² *Gallinula chloropus cachinnans* Bangs is easily distinguished from *G. c. galeata* by having the middle of the back and the rump extensively rufescent

Gallinula chloropus cachinnans Bangs, Proc. New Engl. Zool. Cl., 5, p. 96, 1915—Arbuckle Creek, De Soto County, Florida (type in the Museum of Comparative Zoology, Cambridge, Mass.); Hartert, Nov. Zool., 24, p. 269, 1917—part, North and Central America (crit.); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Almirante, Panama; Grinnell, Univ. Calif. Pub. Zool., 32, p. 88, 1928—Lower California (breeding in the Cape district and in the Colorado delta); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 57, 1931—Albemarle and Chatham Islands, Galápagos (crit.); Peters, Bull. Mus. Comp. Zool., 71, p. 301, 1931—Changuinola, Almirante Bay, Panama; Griscom, Bull. Amer. Mus. N. H., 64, p. 123, 1932—Guatemala; Peters, Bds. World, 2, p. 204, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 305, 1935—Almirante and Canal Zone, Panama; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 164, 1938—Colima, El Salvador.

Gallinula galeata cachinnans Bradlee and Mowbray, Proc. Bost. Soc. N. H., 39, p. 314, 1931—Bermudas (breeding).

Gallinula galeata (not *Crex galeata* Lichtenstein) Taylor, Ibis, 1860, p. 314—Lake Yojoa, Honduras; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 185, 1865—Greytown, Nicaragua; idem, Mem. Bost. Soc. N. H., 2, p. 312, 1874—Mazatlan and Tepic, Mexico; idem, Bull. U. S. Nat. Mus., 4, p. 50, 1876—Tehuantepec City, Oaxaca; Salvin, Ibis, 1866, p. 198—Lake Dueñas, Guatemala; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 462—part, southern United States, Honduras, and Guatemala; Salvin, Ibis, 1870, p. 115—Costa Rica; Nutting, Proc. U. S. Nat. Mus., 6, p. 409, 1884—Los Sábalos, Nicaragua; Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 388, 1884—part, North and Middle America; Salvin, Ibis, 1889, p. 378—Cozumel Island; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 203—Shkolak, Yucatan; Sharpe, Cat. Bds. Brit. Mus., 23, p. 177, 1894—part, a-y', United States, Bermuda, City of Mexico, Peto (Yucatan), Cozumel Island, Guatemala (Lake of Dueñas), and Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 326, 1903—part, North America to Costa Rica; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 75, 1907—Lake Amatitlan, Guatemala; Carriker, Ann. Carnegie Mus., 6, p. 411, 1910—Costa Rica.

Gallinula chloropus centralis Miller and Griscom, Amer. Mus. Nov., 25, p. 3, 1921—Metapa, Nicaragua (type in the American Museum of Natural History, New York).

Range.—Breeds from central California, Arizona, Nebraska, Minnesota, southern Ontario, New York, and Vermont south to southern Lower California, Mexico, and (locally) to Panama, the Gulf Coast, and Florida; Bermudas and Galapagos Islands;¹ casual

brown (raw umber to argus brown), the brown color invading, in most cases, also the wing coverts and secondaries.

Two adults from Lake Managua, Nicaragua (*centralis*) are in no wise distinguishable from North American and Mexican examples.

¹ Galapagos birds are pronounced by Swarth to be inseparable from Californian specimens.

in the Dakotas, Colorado, Greenland, southern Quebec, New Brunswick, Nova Scotia, and Maine. Migratory in the north.

Field Museum Collection.—31: New York (Cayuga Lake, 1); South Carolina (McPhersonville, 1); Florida (St. John's River, 1; Enterprise, 1; Lake Okeechobee, 1; Gainesville, 1; Kissimmee River, 1; New River, 1; Sanford, 1); Indiana (Bluffton, 1; Kouts, 1); Wisconsin (Green Lake, 1; Beaver Dam, 10); Illinois (Chicago, 1; Grass Lake, 1; Worth, Cook County, 5); Texas (Brownsville, 1); Guatemala (Lake Amatitlan, 1).

Conover Collection.—2: Illinois (Henry, 1; Pistakee Lake, Lake County, 1).

****Gallinula chloropus cerceris* Bangs.¹ ANTILLEAN GALLINULE.**

Gallinula chloropus cerceris Bangs, Proc. New Engl. Zool. Cl., 4, p. 81, 1910—Santa Lucia, Lesser Antilles (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, l.c., 5, p. 98, 1915—Santa Lucia (crit.); Hartert, Nov. Zool., 24, p. 270, 1917—Santa Lucia (crit.); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 312, 1929—Bonao (Rio Juna), Haiti; Bond, Auk, 49, p. 494, 1932—Bois d'Orange Swamp, Santa Lucia (crit.); Peters, Bds. World, 2, p. 205, 1934 (range); Danforth, Mon. Univ. Porto Rico, Phys. Biol. Sci., Ser. B, No. 3, p. 29, 1935—Santa Lucia (crit.).

Gallinula galeata (not *Crex galeata* Lichtenstein) Jardine, Ann. Mag. Nat. Hist., 20, p. 376, 1847—Tobago; Gundlach, Journ. Orn., 4, p. 428, 1856—Cuba (breeding); Sallé, Proc. Zool. Soc. Lond., 25, p. 237, 1857—mouth of Rio Haina, Hispaniola; Newton, Ibis, 1859, p. 260—St. Croix; Bryant, Proc. Bost. Soc. N. H., 7, p. 122, 1859—Bahamas; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 378—St. Thomas; Sclater, Proc. Zool. Soc. Lond., 1861, p. 81—Jamaica; March, Proc. Acad. Nat. Sci. Phila., 1864, p. 69—Jamaica; Bryant, Proc. Bost. Soc. N. H., 10, p. 257, 1866—Porto Rico; idem, l.c., 11, p. 97, 1867—Dominican Republic; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 462—part, Cuba, Jamaica, Santo Domingo, and St. Croix; Sundevall, Ofvers. Vet. Akad. Handl., 26, p. 601, 1869—Porto Rico; Gundlach, Journ. Orn., 26, pp. 162, 190, 1878—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 39, 1878—Porto Rico (breeding); Lawrence, Proc. U. S. Nat. Mus., 1, pp. 276, 461, 487, 1879—Grenada and

¹ *Gallinula chloropus cerceris* Bangs: Exceedingly similar to *G. c. cachinnans*, but perhaps distinguishable by the lesser extent of the brown color on the upper parts, which, as a rule, is restricted to the back, rump, and secondaries, and does not invade the wing coverts. It is with considerable reluctance that we maintain this form in view of the fact that nearly 50 per cent of the Antillean gallinules are practically identical with North American birds. Wetmore, however, is inclined to admit its validity. It is now an established fact that the type was an abnormally colored individual, since other specimens from Santa Lucia, examined by Hartert, Bond, and the writers, do not in the least differ from the inhabitants of other Antillean islands, thus making *portoricensis* a synonym of *cerceris*.

Two adults from Tobago (Sandy Point and Lecito) are perfectly typical of this form, agreeing with specimens from the Lesser Antilles, and differing from those of Trinidad and the South American continent by the wholly dark raw umber middle back and rump.

Guadeloupe; Sclater, Proc. Zool. Soc. Lond., 1879, p. 765—Montserrat; Cory, Bds. Bahamas, p. 177, 1880—Bahamas (ex Bryant); Allen, Bull. Nutt. Orn. Cl., 5, p. 169, 1880—Santa Lucia; Cory, l.c., 6, p. 155, 1881—Lake Enriquills, near Gantier, Hispaniola; idem, Bds. Haiti, San Dom., p. 161, 1885—near Gantier; idem, Auk, 3, p. 502, 1886—Grand Cayman; idem, Ibis, 1886, p. 474—Marie Galante; Wells, Proc. U. S. Nat. Mus., 9, p. 629, 1887—Grenada and Isle de Rhonde; Fielden, Ibis, 1889, p. 499—Barbados (resident); Cory, Auk, 8, pp. 46, 47, 294, 1891—St. Croix, Anguilla, Antigua, and New Providence; Scott, Auk, 9, p. 12, 1892—near Boston, Jamaica; Cory, Cat. W. Ind. Bds., p. 91, 1892—Bahamas (New Providence, Great Inagua), Cuba, Isle of Pines, Grand Cayman, Jamaica, Hispaniola, Porto Rico, St. Thomas, St. Croix, Anguilla, Barbuda, Antigua, Montserrat, Guadeloupe, Marie Galante, Santa Lucia, Grenada, and Barbados; Sclater, Proc. Zool. Soc. Lond., 1892, p. 500—Anguilla; Chapman, Bull. Amer. Mus. N. H., 4, p. 289, 1892—San Juan, Cuba; Field, Auk, 11, p. 122, 1894—Port Henderson, Jamaica; Sharpe, Cat. Bds. Brit. Mus., 23, p. 177, 1894—part, spec. z'-r', Jamaica, Haiti, Anguilla, St. Croix, Montserrat, Guadeloupe, Grenada, and Mustique; Wells, Auk, 19, p. 244, 1902—Carriacou (breeding); Bowdish, l.c., p. 359, 1902—Aguadilla and Mayagüez, Porto Rico; Bonhote, Ibis, 1903, p. 309—Nassau, New Providence; Riley, Smiths. Misc. Coll., 47, p. 280, 1904—Barbuda and Antigua; idem, in Shattuck, The Bahama Islands, p. 360, 1905—Bahamas (New Providence and Inagua); Nicoll, Ibis, 1904, p. 586—Grand Cayman; Bangs and Zappey, Amer. Natur., 39, p. 192, 1905—Santa Rosalia Lagoon, Isle of Pines; Clark, Proc. Bost. Soc. N. H., 32, p. 247, 1905—Barbados, St. Vincent (Calliaqua), Grenada, and Grenadines (Bequia, Mustique, Canouan, Mayreau, Tobago Keys, Union, Carriacou, Isle de Rhonde); Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 356, 1909—Dominican Republic; Lowe, Ibis, 1909, p. 339—Grand Cayman; idem, l.c., 1911, p. 146—Grand Cayman.

Gallinula galeata galeata Todd and Worthington, Ann. Carnegie Mus., 7, pp. 413, 447, 1911—Great Inagua and Watlings Islands, Bahamas; Wetmore, Bull. U. S. Dept. Agr., 326, p. 35, 1916—Porto Rico (habits, food); idem, Auk, 33, p. 411, 1916—Vieques; idem, Auk, 34, p. 58, 1917—Culebra; Struthers, Auk, 40, p. 472, 1923—Anegado and Cartagena Lagoons, Porto Rico.

Gallinula chloropus cachinnans Bangs, Proc. New Engl. Zool. Cl., 5, p. 96, 1915—part, West Indies; Todd, Ann. Carnegie Mus., 10, p. 203, 1916—Isle of Pines; Bangs, Bull. Mus. Comp. Zool., 60, p. 305, 1916—Grand Cayman; Noble, l.c., p. 366, 1916—Grand Etang, Cluny, near Sainte Rose, Guadeloupe; Hartert, Nov. Zool., 24, p. 269, 1917—part, West Indies; Peters, Bull. Mus. Comp. Zool., 61, p. 402, 1917—El Batey, Dominican Republic; Barbour, Mem. Nutt. Orn. Cl., 6, p. 56, 1923—Cuba; Peters, Auk, 44, p. 534, 1927—Anguilla (crit.).

Gallinula chloropus portoricensis Danforth, Auk, 42, p. 560, 1925—Cartagena Lagoon, Porto Rico (type in coll. of Cornell University, Ithaca, N.Y.); idem, Journ. Dept. Agr. Porto Rico, 10, p. 59, 1926—Cartagena Lagoon (habits); Wetmore, Sci. Surv. Porto Rico & Virgin Islands, 9, p. 343, 1927—Porto Rico, Vieques, Culebra, St. Croix, and St. Thomas (monog.); Bond,

Proc. Acad. Nat. Sci. Phila., 80, p. 495, 1928—Port de Paix and Trou Cayman, Haiti; Danforth, Auk, 46, p. 362, 1929—Hispaniola; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 31, 1929—Guerra, Haiti; Danforth, Journ. Dept. Agr. Porto Rico, 14, p. 115, 1930—Virgin Gorda, Virgin Islands; Beatty, l.c., p. 139, 1930—St. Croix; Danforth, l.c., 15, pp. 22, 51, 1931—Guanica Lagoon and other localities, Porto Rico; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 136, 1931—Hispaniola (monog.); Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 16, 1932—Montet, Petit Trou de Nippes, and Ile à Vache, Hispaniola; Danforth, Auk, 51, p. 358, 1934—Antigua (crit.); idem, Journ. Agr. Univ. Porto Rico, 19, pp. 447, 477, 1935—Virgin Islands (Cayo Norte, St. Thomas, Jost van Dyke, Tortola, Beef Island, St. Croix) and Barbuda; idem, Trop. Agric., 13, p. 214, 1936—St. Kitts.

Gallinula chloropus subsp. Danforth, Auk, 45, p. 482, 1928—near Hodges and Black River, Jamaica; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 495, 1928—Vieux Fort, Santa Lucia.

Range.—Bahamas (New Providence, Great Inagua, Watlings Island); Grand Cayman Island; Greater and Lesser Antilles; island of Tobago.

Field Museum Collection.—36: Bahamas (Great Inagua, 3); Cuba (Habana, 1); Grand Cayman, 18; Jamaica (unspecified, 1); Hispaniola (Le Coup, 4; Port-au-Prince, 1; Port-de-Paix, Haiti, 1); Puerto Rico (unspecified, 2); Virgin Islands (St. Croix, 1); Lesser Antilles (Anguilla, 2; Antigua, 2).

Conover Collection.—8: Puerto Rico (Laguna Cartagena, 2); Virgin Islands (St. Croix, 6).

****Gallinula chloropus galeata* (Lichtenstein). BRAZILIAN GALLINULE.**

Crex galeata Lichtenstein,¹ Verz. Säug. Vögel Berliner Mus., p. 36, 1818—based on "Yahaná" Azara, No. 379, Paraguay; idem, Verz. Doubl. Zool. Mus. Berlin, p. 80, 1823—São Paulo.

Gallinula galeata Wied, Beitr. Naturg. Bras., 4, (2), p. 807, 1833—southeastern Brazil; Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 760, 1848—coast of British Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 389, 1856—Brazil (habits); idem, Journ. Orn., 8, p. 262, 1860—Paraná, Entre Ríos; idem, Reise La Plata St., 2, p. 505, 1861—Rio Paraná; Léotaud, Ois. Trinidad, p. 503, 1866—Trinidad; Euler, Journ. Orn., 15, p. 419, 1867—Brazil (nesting habits); Selater and Salvin, Proc. Zool. Soc. Lond., 1868—part, Guiana, Brazil, and Paraguay; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 40—Lagõa de Defunto, south of Curvelo,

¹ Lichtenstein's entry reads; "No. 526. *Crex galeata* n. *Fulica chlorop[us]*, Amer. merid. Gmel.; *Gall. chlor.* Amer. merid. Lath.; Yahaná proprement dit Azara. Brasilien." The only identifiable basis is Azara's "Yahaná," since Gmelin and Latham did not distinguish the inhabitants of South America from the European Moorhen, and Paraguay automatically becomes the type locality.

Minas Geraes; Pelzeln, Orn. Bras., 3, p. 318, 1870—São Paulo (Ipanemá) and Matto Grosso (Caíçara); Doering, Period. Zool. Arg., 1, p. 256, 1874—Rio Guayquiraró, Corrientes; White, Proc. Zool. Soc. Lond., 1882, p. 627—Salto, Buenos Aires; Barrows, Auk, 1, p. 277, 1884—Concepción del Uruguay, Entre Ríos; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 181, 1885—Taquara, Rio Grande do Sul; Salvin, Ibis, 1886, p. 177—British Guiana (ex Schomburgk); Selater and Hudson, Arg. Orn., 2, p. 156, 1889—Argentina; Aplin, Ibis, 1894, p. 204—Monzón River, Uruguay; Chapman, Bull. Amer. Mus. N. H., 6, p. 78, 1894—Trinidad; Sharpe, Cat. Bds. Brit. Mus., 23, p. 177, 1894—part, spec. q", r", t"-w", f, Trinidad, Brazil (Caíçara), and Buenos Aires (Lujan); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 34, 1897—San Lorenzo, Jujuy; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 148, 1899—Taquara do Mundo Novo and São Lourenço, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 417, 1899—Iguapé and Piracicaba, São Paulo; idem, l.c., 4, p. 164, 1900—Cantagallo, Rio de Janeiro; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 215, 1902—Manantial, Tucumán; Lönnberg, Ibis, 1903, pp. 444, 459—La Quinta, eastern Jujuy, and Tatarenda, Bolivian Chaco; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—Manantial, Tucumán; Ihering, Cat. Faun. Braz., 1, p. 31, 1907—São Paulo, Rio Grande do Sul (Novo Hamburgo), and Espirito Santo; Penard, Vog. Guyana, 1, p. 217, 1908—Surinam (breeding, eggs); Berlepsch, Nov. Zool., 15, p. 300, 1908 (not yet recorded from French Guiana); Hartert and Venturi, l.c., 16, p. 258, 1909—Barracas al Sud, Buenos Aires, and Ocampo, Santa Fé; Dabene, Anal. Mus. Nac. Buenos Aires, 18, p. 197, 1910 (range in Argentina); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 96, 1910—Joazeiro, Bahia; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 74, 1914—Pará, Brazil; Chubb, Bds. Brit. Guiana, 1, p. 77, 1916—Bartica and Abary River; Gibson, Ibis, 1920, p. 42—Cape San Antonio, Buenos Aires (habits); Arribáizaga, El Hornero, 2, p. 90, 1920—Chaco; Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 601, 1924—Prov. Buenos Aires; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 181, 1922—Oropuche Lagoon, Trinidad; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 231, 1924—Bahia (Joazeiro, Petrolina, Barra, island near Sambaiba) and Piahy (Rio Taquarussú); Smyth, El Hornero, 4, p. 4, 1927—Argentina (eggs descr.); Pereyra, l.c., 4, p. 23, 1927—Zelaya, Buenos Aires.

Gallinula galeata galeata Hellmayr, Nov. Zool., 13, p. 53, 1906—Caroni, Trinidad.

Gallinula chloropus galeata Bangs, Proc. New Engl. Zool. Cl., 5, p. 95, 1915—Concepción del Uruguay, Entre Ríos, and Lagõa Santa, Minas Geraes, Brazil (crit., range); Hartert, Nov. Zool., 24, p. 269, 1917 (crit., range); Tremoleras, El Hornero, 2, p. 12, 1920—Uruguay (Canelones, San José, Colonia); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 40, 1922—Lagunillas, Mérida, and Rio Aurare, Zulia, Venezuela (crit.); Wetmore, Bull. U. S. Nat. Mus., 133, p. 121, 1926—Rio Pilaga (Formosa), Rio Negro (Uruguay), and Mendoza (near Tunuyán) (crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 483, 1929—Rio Taquarussú, Piahy; Naumburg, Bull. Amer. Mus. N. H., 60, p. 74, 1930—Matto

Grosso; Roberts, Trop. Agric., 11, p. 90, 1934—Trinidad; Peters, Bds. World, 2, p. 205, 1934 (range); Laubmann, Verh. Orn. Ges. Bay., 20, p. 273, 1934—Est. La Geraldina, Santa Fé; Belcher and Smooker, Ibis, 1935, p. 284—Caroni Marshes, Trinidad (nest and eggs descr.).

Range.—Island of Trinidad; Venezuela west to Zulia and Mérida; the Guianas; Brazil (locally) from Pará south to Rio Grande do Sul and Matto Grosso; eastern Bolivia (Chiquitos; Tarija; Santa Cruz); Argentina from the eastern foot of the Andes in Jujuy and Tucumán south to Mendoza and east to the Rio Paraná, Entre Ríos, and Buenos Aires; Paraguay; Uruguay.¹

Field Museum Collection.—16: Venezuela (Lake Valencia, Carabobo, 10; Rio Aurare, 1); Uruguay (Minas, Polanco, 1; Panco, Canelones, 1); Argentina (Isla Ella, Delta del Parana, 2; Quilmes, 1).

Conover Collection.—7: Venezuela (Lagunillas, Zulia, 1); Paraguay (265 km. west of Puerto Casado, 4); Bolivia (Buenavista, Santa Cruz, 2).

**Gallinula chloropus pauxilla* Bangs.² LESSER GALLINULE.

Gallinula chloropus pauxilla Bangs, Proc. New Engl. Zool. Cl., 5, p. 96, 1915—Guabinas, Rio Cauca, Colombia (type in Bangs Collection, Museum of Comparative Zoology, Cambridge, Mass.); Hartert, Nov. Zool., 24, p. 269, 1917—western Colombia (crit.); Chapman, Bull. Amer. Mus. N. H.,

¹ It has already been pointed out by Osgood and Conover that Venezuelan specimens are not separable from *galeata*, and independent comparison by the senior author tends to confirm this conclusion. An adult male from Trinidad (Caroni swamp) and another from British Guiana (Abary River) are likewise similar to southern examples, agreeing in size and coloration. Characteristic of this form, in comparison to *G. c. cachinnans* and *G. c. cerceris*, are the deep plumbeous coloration of the upper parts, at best with a slight suffusion of dull olive brown or deep olive on middle back and rump, and the widely expanded, posteriorly truncate frontal shield.

The Brazilian Gallinule does not occur anywhere in Chile (cf. Philippi, Proc. Zool. Soc. Lond., 1868, p. 532; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 362, 1932), and the records by Des Murs and Frauenfeld refer without question to some species of *Fulica*.

Additional material examined.—Trinidad: Caroni swamp, 1 (wing, 175; bill, 48).—British Guiana: Abary River, 1 (165; 50).—Brazil: Joazeiro, Bahia, 1 (180; 45); Iguapé, São Paulo, 1 (170; 47); Ipanemá, São Paulo, 1 (190; 49); Rio Grande do Sul, 2 (180, 185; 46, 50); Caicara, Matto Grosso, 3 (180, 180, 185; 45, 45, 47).—Bolivia: Chiquitos, 1 (178; 42).—Argentina: opposite Rosario, Santa Fé, 1 (182; 45); Isla Ella, Delta del Paraná, 1 (183; 46); Los Yngleses, Ajó, Buenos Aires, 2 (170, 175; 44, 48); Barracas al Sud, Buenos Aires, 2 (165, 185; 42½, 43).

² *Gallinula chloropus pauxilla* Bangs: Similar in coloration to *G. c. galeata*, but with shorter and slenderer tarsus and toes.

With the limited material at our command we cannot be sure that the birds occurring in the area circumscribed above really pertain to one and the same form. Specimens from northern and western Colombia seem to have shorter

36, p. 217, 1917—Cali, Cauca, Colombia; idem, l.c., 55, p. 178, 1926—Chone and Lago San Pablo, western Ecuador (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 374, 1931—Ciénaga, Magdalena, Colombia; Peters, Bds. World, 2, p. 205, 1934 (range).

Gallinula galeata (not *Crex galeata* Lichtenstein) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 559—part, Chorillos, near Lima, Peru; Sclater and Salvin, l.c., 1879, p. 546—Antioquia, Colombia (nest descr.); Salvin, l.c., 1883, p. 428—Callao, Peru; Taczanowski, Orn. Pér., 3, p. 327, 1886—part, Lima and Callao; Sharpe, Cat. Bds. Brit. Mus., 23, p. 177, 1894—part, spec. s^r, y^r, Antioquia and Callao; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 40, 1900—Vinces, Ecuador; Chubb, Ibis, 1919, p. 54—Eten and Reque (Lambayeque), and Trujillo (Libertad), Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 19, 1922—La Carolina (Quito) and Lake San Pablo (Imbabura), Ecuador.

Range.—Northern and western Colombia (Ciénaga, west foot of Santa Marta Mountains; Cali and Guabinas, Cauca Valley), western Ecuador, and Pacific coast region of Peru south to Lima (Chorillos).

Conover Collection.—7: Colombia (Timba, Valle, 1); Ecuador (Laguna Yaguarcocha, Imbabura, 1; Ciénaga del Chimborazo, 1; Lago San Pablo, Imbabura, 3; Arenillas, El Oro, 1).

****Gallinula chloropus garmani* Allen.¹ GARMAN'S GALLINULE.**

Gallinula garmani Allen, Bull. Mus. Comp. Zool., 3, p. 357, 1876—Lake Titicaca, Peru (cotypes in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, l.c., 70, p. 171, 1930); Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 388, 1884—Lake Titicaca (diag.); Allen, Bull. Amer. Mus. N. H., 3, p. 107, 1889—Lake Titicaca.

Gallinula galeata (not *Crex galeata* Lichtenstein) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 176—Lake Tambo, Arequipa, Peru (spec. examined); Taczanowski, l.c., 1874, p. 559—part, Lake Junín, Peru; idem, Orn. Pér.,

wings (156–165) but those examined from Ecuador average considerably larger (156–190). Four from northwestern Peru (Lambayeque and Trujillo), however, agree with the toptotypical birds in wing length, but have markedly shorter bills and frontal shields (36–40 as against 45–49).

Additional material examined.—Colombia: Cauca Valley, 2.—Peru: Eten, Lambayeque, 1; Reque, Lambayeque, 1; Trujillo, Libertad, 2.

¹ *Gallinula chloropus garmani* Allen, the largest and darkest member of the group, is easily separable by its large size, almost uniform dark plumbeous coloration (at best with a slight tinge of dull olivaceous on lower back and rump), and slaty blackish head and neck. Wing, 212–228, (females) 190–210; bill (with frontal shield), 42 (female) to 50 (male).

Additional material examined.—Peru: Lake Junín, 3; Laguna de Tambo, Arequipa, 1; Anta, Cuzco, 3; Lucre, Cuzco, 3; Puno, Lake Titicaca, 3.—Bolivia: Chililaya, Lake Titicaca, 3; Sitani, Oruro, 1.—Chile, Tarapacá: Sacayá, 5.—Argentina: Puna, Jujuy, 1.

3, p. 327, 1886—part, Junín; Selater, Proc. Zool. Soc. Lond., 1886, p. 402—Sitana, Prov. Oruro, Bolivia; idem, l.c., 1891, p. 136—Sacayá, Tarapacá, Chile; Sharpe, Cat. Bds. Brit. Mus., 23, p. 188, 1894—part, spec. x", z", a²-e³, Peru (Laguna de Tambo) and Chile (Sacayá); Reed, Anal. Univ. Chile, 93, p. 209, 1896—Chile; Lane, Ibis, 1897, p. 300—Sacayá (habits); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 50—Ingapirca, Junín, Peru; idem, Ornith., 13, p. 131, 1906—Puno, Lake Titicaca, Peru.

Gallinula chloropus garmani Bangs, Proc. New Engl. Zool. Cl., 5, p. 98, 1915 (crit., range); Hartert, Nov. Zool., 24, p. 270, 1917 (crit.); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 361, 1932—Cordilleras of Tarapacá, Chile (crit.); Peters, Bds. World, 2, p. 205, 1934 (range).

Gallinula galeata garmani Chapman, Bull. U. S. Nat. Mus., 117, p. 48, 1921—Calca, Urubamba, Peru.

Range.—Puna zone of southern Peru (from Junín south to Arequipa and Puno), Bolivia, northern Chile (Tarapacá), and extreme northwestern Argentina (Jujuy).

Field Museum Collection.—1: Peru (near Calca, Cuzco, 1).

Conover Collection.—5: Peru (Puno, Puno, 1; Chucuito, Puno, 2); Bolivia (Vacas, Cochabamba, 1; Desaguadero, La Paz, 1).

Genus PORPHYRULA Blyth¹

Porphyryla Blyth, Cat. Bds. Mus. Asiat. Soc., p. 283, after Sept. 1, 1852²—type, by monotypy, *P. chloronotus* Blyth=*Porphyrio alleni* Thomson.

Ionornis Reichenbach, Av. Syst. Nat., p. xxi, Oct. 1, 1852—type, by monotypy, *Fulica martinicensis* Jacquin=*Fulica martinica* Linnaeus.

Glaucestes Reichenbach, Av. Syst. Nat., p. xxi, Oct. 1, 1852—type, by monotypy, *Fulica flavirostris* Gmelin.

Porphyriola Sundevall, Meth. Nat. Av. Disp. Tent., p. 131, 1872—new name for *Porphyryla* Blyth.

**Porphyryla martinica* (Linnaeus). PURPLE GALLINULE.

Fulica martinica Linnaeus, Syst. Nat., 12th ed., 1, p. 259, 1766—Martinique, West Indies.

Fulica parva Pennant, in J. R. Forster, Ind. Zool., p. 42, 1781—based on "La petite Poule-Sultane" Brisson, Orn., 5, p. 526, pl. 42, fig. 2; Cayenne (type in coll. of M. de Réaumur).

Fulica martinicensis Jacquin, Beytr. Gesch. Vögel, p. 12, pl. 3, 1784—Martinique, West Indies.

¹ We agree with Peters (Bds. World, 2, p. 206, 1934) that it is preferable to follow Sharpe (Cat. Bds. Brit. Mus., 23, p. 187, 1894) in the wider limits of the genus rather than to place each of the three species in a monotypic genus.

² The advance sheets of this work distributed by the author as early as 1849 to some of his correspondents (cf. Mathews, Bds. Australia, Suppl., 4, p. 10, 1925) can hardly be regarded as constituting publication.

- Parra viridis* Gmelin, Syst. Nat., 1, (2), p. 708, 1789—based on "Jacana" (Brisson ex) Marcgrave, Hist. Nat. Bras., p. 190; Brazil (cf. Lichtenstein, Abhandl. Berliner Akad., Phys. Kl., for the years 1816–17, p. 157, 1819).
- Fulica porphyrio* (not of Linnaeus) Richard and Bernard, Act. Soc. Hist. Nat. Paris, 1, (1), p. 118, 1792—Cayenne.
- Porphyrio cyaneicollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 28, 1819—based on "Yahaná garganta celeste" Azara, No. 383 (=juv. mut.); forty-five miles south of the island of Ascension, Paraguay.
- Porphyrio tavoua* Vieillot (and Oudart), Galerie Ois., 2, p. 170, pl. 267, 1825—Cayenne, Martinique, and North America (descr. of adult and young).
- Porphyrio americanus* Swainson, Nat. Hist. Class. Bds., 2, p. 357, 1837—based on "Wil. 75, f. 2" [= *Gallinula martinica* Ord, Suppl. Wilson, Amer. Orn., p. 230, pl. 73, fig. 2, 1825]; Louisiana.
- Gallinula martinicensis* Wied, Reise Bras., 2, p. 93, 1821—Rio Itahype, southern Bahia; idem, Beitr. Naturg. Bras., 4, (2), p. 812, 1833—eastern Brazil (plumages, habits).
- Porphyrio martinicus*(a) Jardine, Ann. Mag. Nat. Hist., 20, p. 376, 1847—Tobago; Gosse, Bds. Jam., p. 377, 1847—Jamaica; Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 761, 1848—British Guiana; Taylor, Ibis, 1864, p. 96—Trinidad; Léotaud, Ois. Trinidad, p. 501, 1866—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 459 (monog.); Pelzeln, Orn. Bras., 3, p. 317, 1870—Rio de Janeiro (Teixera), São Paulo (Ypanemá, Irisanga), Goyáz (Rio Araguaya), Matto Grosso (Caiçara), and Rio Negro (Marabitanas), Brazil; Wyatt, Ibis, 1871, p. 383—Lake Paturia, Magdalena, Colombia; Cabanis, Journ. Orn., 22, p. 231, 1874—Cantagallo, Rio de Janeiro; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 546—Medellin, Antioquia, Colombia; Cory, Bds. Bahama Islands, p. 178, 1880—Bahamas (ex Bryant); Salvin, Ibis, 1889, p. 378—Cozumel and Ruatan Islands.
- Ionornis martinicus*(a) Merrill, Proc. U. S. Nat. Mus., 1, p. 165, 1878—Fort Brown, Texas; Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 384 (monog.); Cory, Bds. Haiti and San Dom., p. 162, 1885—Gantier; Wells, Proc. U. S. Nat. Mus., 9, p. 629, 1887—Grenadines; Berlepsch, Journ. Orn., 37, p. 320, 1889—Tarapoto, Rio Huallaga, Peru; Cory, Bds. W. Ind., p. 258, 1889; idem, Cat. W. Ind. Bds., p. 91, 1892—Bahamas (New Providence), Greater Antilles (Cuba, Isle of Pines, Hispaniola, Porto Rico), and Lesser Antilles (Dominica, Santa Lucia, St. Vincent, Grenada, Barbados); idem, Auk, 10, p. 220, 1893—Tobago; Allen, Bull. Amer. Mus. N. H., 5, p. 150, 1893—Cachoeira, Matto Grosso; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 15, 1900—Carandasinho, Matto Grosso; Bangs, Proc. New Engl. Zool. Cl., 2, p. 14, 1900—Loma del León, Panama; Bangs and Zappey, Amer. Natur., 39, p. 192, 1905—Pasadita, Isle of Pines; Clark, Proc. Bost. Soc. N. H., 32, p. 246, 1905—Barbados, St. Vincent, Grenada, and Grenadines; Ihering, Cat. Faun. Braz., 1, p. 32, 1907—São Paulo, Espirito Santo, Minas Geraes (Marianna), and Rio Grande do Sul (Piratiní); Hellmayr, Nov. Zool., 15, p. 100, 1908—Fazenda Esperança, Goyáz; Lillo, Apunt. Hist. Nat., 1, p. 22, 1909—San Vicente, Santa Fé, Argentina; Hartert and Venturi, Nov. Zool., 16, p. 259,

1909—San Vicente, Santa Fé; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 198, 1910—Santa Fé (San Vicente), Buenos Aires (Barracas al Sud), and Santiago del Estero; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1208—Tadó, Chocó, Colombia; Dabbene, Bol. Soc. Physis, 1, p. 256, 1913 (range in Argentina); Bertoni, Faun. Parag., p. 37, 1914—Puerto Bertoni, Alto Paraná, Paraguay; Chubb, Bds. Brit. Guiana, 1, p. 78, 1916—upper Takutú Mountains, Bartica, Abary River, and Georgetown; Todd, Ann. Carnegie Mus., 10, p. 203, 1916—Pasadita, Isle of Pines (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 220, 1917—Atrato River, Sinú River, Turbaco, and Florencia, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 244, 1918—Gatún Lake, Panama; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 42, 1918—Paramaribo and Altonaweg, Surinam; Arribáizaga, El Hornero, 2, p. 90, 1920—Chaco; Todd and Carriker, Ann. Carnegie Mus., 14, p. 179, 1922—Mamatoco, Fundación, and Trojas de Cataca, Santa Marta, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 20, 1922—La Carolina, Ecuador; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 41, 1922—Lagunillas, Mérida, Venezuela; Delacour, Ibis, 1923, p. 139—Apure and Portuguesa rivers, Venezuela; Barbour, Mem. Nutt. Orn. Cl., 6, p. 56, 1923—Cuba; Howell, Bds. Alabama, p. 91, 1924—coast of Alabama; Griscom and Crosby, Auk, 42, p. 527, 1925—Brownsville, Texas; Friedmann, l.c., p. 542, 1925—Brownsville, Texas; Chapman, Bull. Amer. Mus. N. H., 55, p. 179, 1926—Chone, western Ecuador; Wetmore, Sci. Surv. Porto Rico and Virgin Is., 9, p. 342, 1927—Porto Rico (habits, full bibliog.); Pereyra, El Hornero, 4, p. 23, 1927—Zelaya, Buenos Aires; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Almirante, Panama; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 484, 1929—Lake Parnaguá, Piahy; Naumburg, Bull. Amer. Mus. N. H., 60, p. 74, 1930—Urucúm, Matto Grosso; Peters, Bull. Mus. Comp. Zool., 71, p. 301, 1931—Changuinola, Banana River, Sixaola (Elena), and Cricamola, Panama; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 134, 1931—Hispaniola (full bibliog.); Darlington, Bull. Mus. Comp. Zool., 71, p. 374, 1931—Ciénaga, Magdalena, Colombia; Bradlee and Mowbray, Proc. Bost. Soc. N. H., 39, p. 313, 1931—Bermudas; Roberts, Trop. Agric., 11, p. 90, 1934—Oropuche River, Trinidad; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 14, 1935—Uaxactun, Petén, Guatemala; Danforth, Monog. Univ. Porto Rico, Phys. Biol. Sci., Ser. B, 3, p. 28, 1935—Santa Lucia.

Porphyriola martinica Sharpe, Cat. Bds. Brit. Mus., 23, p. 189, 1894—South Carolina and Florida south to Brazil; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 12, 1899—Laguna de Pita, Darien, Panama; Ihering, Rev. Mus. Paul., 3, p. 419, 1899—São Paulo (Piracicaba, Iguapé); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 327, 1903—eastern Mexico to Panama; Bonhote, Ibis, 1903, p. 309—Mangrove Cay, Andros, Bahamas (visitant); Hellmayr, Nov. Zool., 13, p. 53, 1906—Caroni River, Trinidad; Carriker, Ann. Carnegie Mus., 6, p. 411, 1910—Laguna de Coris, Matina, and mouth of Matina River, Costa Rica; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 96, 1910—Barrinha (Joazeiro), Barra do Rio Grande, and island in the Rio São Francisco near Sambaiba, Bahia; Chubb, Ibis, 1910, p. 66—Sapucay, Paraguay.

Porphyryla martinica Peters, Bds. World, 2, p. 206, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 305, 1935—Panama; Pinto, Rev. Mus. Paul., 19, p. 75, 1935—Cahype, Bahia; idem, l.c., 20, p. 41, 1936—In-húmas, Goyáz; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 162, 1938—Lake Olomega, El Salvador.

Range.—Breeds from Texas, Louisiana, southern Alabama, and South Carolina south through eastern Mexico, Central America (locally), and the West Indies to western Ecuador, Peru (Tarapoto, Rio Huallaga), Bolivia (Rio Yapacani, Santa Cruz), and southern Brazil (Rio Grande do Sul and Matto Grosso); sparingly also in Paraguay and northeastern Argentina (a few records from Santa Fé and Buenos Aires); accidental in Bermuda.

Field Museum Collection.—36: Florida (Fort Myers, 6; Sanford, 2); West Indies (Tobago, 1; St. Lucia, 2; Jamaica, 1; Gantier, Haiti, 1); El Salvador (Laguna Olomega, San Miguel, 2); Venezuela (Lake Valencia, 1); Colombia (Atrato River, 1); British Guiana (Buxton, E. C., Demerara, 11; Georgetown, 1; unspecified, 2); Surinam (Paramaribo, 1); Brazil (Itacoatiará, Amazonas, 1; Rio do Peixe, Bahia, 1; Quixada, Ceará, 2).

Conover Collection.—33: Panama (Port Obaldia, Darien, 7); Venezuela (Lagunillas, Zulia, 1); Colombia (Ciénaga, Santa Marta, 1; Timba, Valle, 2); Ecuador (Leon, Latacunga, 1; Totoral, Quito, 4); Brazil (Rio Manacapurú, Amazonas, 3; Tauary, Rio Tapajóz, 3; Lago Javary, Rio Amazonas, 3; Pinhel, Rio Tapajóz, 1); Bolivia (Rio Yapacani, Santa Cruz, 1); Paraguay (Horqueta, 6).

****Porphyryla flavirostris* (Gmelin). LITTLE GALLINULE.**

Fulica parva (not of Pennant, 1781) Boddaert, Tabl. Pl. Enl., p. 54, Dec., 1783—based on “La Favorite, de Cayenne” Daubenton, Pl. Enl., pl. 897, and “La Favorite” Buffon (Hist. Nat. Ois., 8, p. 207);¹ Cayenne.

Fulica flavirostris Gmelin, Syst. Nat., 1, (2), p. 600, 1789—same basis.

Porphyrio cyanoleucus Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 27, 1819—based on “Yahaná blanco y celeste” Azara, No. 381; Paraguay.²

Gallinula parva Schlegel, Mus. Pays-Bas, Ralli, p. 39, 1865—Surinam and Cayenne.

Porphyrio parvus Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 592—Rio Amazonas; idem, l.c., 1868, p. 460—Cayenne, Surinam, Amazon, and Rio Araguay (monog.); Pelzeln, Orn. Bras., 3, p. 318, 1870—Goyáz (Porto do Rio Araguay) and Matto Grosso (Caicara), Brazil; Reinhardt, Vidensk.

¹ Excluding “La petite Poule-Sultane” Brisson (Orn., 5, p. 526, pl. 42, fig. 2), quoted by Boddaert in synonymy, which pertains to *P. martinica*.

² Azara’s description is excellent, even as to the notes on the coloration of the soft parts, which are in agreement with the data supplied by Henry Whitely.

Medd. Naturhist. Foren., 1870, p. 42—Lagõa Santa, Minas Geraes; Allen, Bull. Essex Inst., 8, p. 82, 1876—Rhomes (sixty miles from Santarém), Rio Tapajóz, Brazil; Kerr, Ibis, 1892, p. 149—Fortín Page, lower Pilcomayo.

Ionornis parva Baird, Brewer, and Ridgway, Water Bds. N. Amer., 1, p. 384, 1884—Cayenne and Amazon (diag.); Ihering, Cat. Faun. Braz., 1, p. 32, 1907 (range); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 198, 1910—lower Pilcomayo; Bertoni, Faun. Parag., p. 37, 1914—Rio Pilcomayo.

Glaucestes parvus Allen, Bull. Amer. Mus. N. H., 5, p. 150, 1893—Corumbá, Matto Grosso.

Porphyriola parva Sharpe, Cat. Bds. Brit. Mus., 23, p. 191, 1894—British Guiana (Annai) and Rio Amazon; Penard, Vog. Guyana, 1, p. 215, 1908—Surinam; Berlepsch, Nov. Zool., 15, p. 300, 1908—Cayenne; Snethlage, Bol. Mus. Goeldi, 8, p. 74, 1914—Pará, Monte Alegre, and Cussary, Brazil; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 152, 1928—Pará.

Ionornis flavirostris Dabbene, Bol. Soc. Physis, 1, p. 256, 1913—lower Pilcomayo; Chubb, Bds. Brit. Guiana, 1, p. 79, 1916—upper Takutú Mountains, Abary River, and Hoobaboo; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 42, 1918—Paramaribo, Surinam; Naumburg, Bull. Amer. Mus. N. H., 60, p. 74, 1930—Urucúm and Bocaina de Descalvados, Matto Grosso.

Porphyriola parva Peters, Bds. World, 2, p. 207, 1934 (range).

Range.—French, Dutch, and British Guiana; Brazil (Pará, Rio Acará, Monte Alegre, Cussary, Rhomes, and near Obidos, lower Amazon; Rio Purús, Rio Uruba, Lago Baptista, Amazonas; Lagõa Santa, Minas Geraes; Porto do Rio Araguay, Goyáz; Caiçara, Corumbá, Urucúm, and Bocaina de Descalvados, Matto Grosso); northern Paraguay (Fortín Page, lower Pilcomayo; Horqueta; 265 km. west of Puerto Casado).¹

Field Museum Collection.—3: British Guiana (Buxton, E. C., Demerara, 1; unspecified, 1); Surinam (Paramaribo, 1).

Conover Collection.—18: Surinam (Paramaribo, 1); Brazil (Lago Javary, near Obidos, 5; Boca de Channel Piava, 2; Tome-assú, Rio Acará, 2; Villa Acará, Rio Acará, 1; Canutama, Rio Purús, 3); Paraguay (Horqueta, 2; 265 km. west of Puerto Casado, 2).

Genus FULICA Linnaeus

Fulica Linnaeus, Syst. Nat., 10th ed., 1, p. 152, 1758—type, by tautonymy, "*Fulica*"=*Fulica atra* Linnaeus.

Phalaris Reichenbach, Av. Syst. Nat., p. xxi, Oct. 1, 1852—type, by monotypy, *Fulica "gigas"* [= *gigantea*] Eyndoux and Gervais.

¹ A very rare bird in collections. Specimens from inner Brazil do not differ from Guianan birds.

Additional material examined.—French Guiana: Cayenne, 1.—British Guiana: Demerara, 2.—Brazil: Porto do Rio Araguay, Goyáz, 2; Caiçara, Matto Grosso, 3.

Lysca Reichenbach, Av. Syst. Nat., p. xxi, Oct. 1, 1852—type, by monotypy,
Fulica ardesiaca Tschudi.

Lycornis Bonaparte,¹ Compt. Rend. Acad. Sci. Paris, 43, p. 600, 1856—type,
 by monotypy, *Fulica cornuta* Bonaparte.

****Fulica atra atra* Linnaeus. EUROPEAN COOT.**

Fulica atra Linnaeus, Syst. Nat., 10th ed., 1, p. 152, 1758—Europe=Sweden;
 Winge, Consp. Faun. Groenl., Aves, in Medd. Grønland, 21, p. 146,
 1898—Greenland (Kangek; Nanortalik [Oct. 26, 1881]; Julianehaab);
 Taverner, Auk, 46, p. 227, 1929—Exploits Harbor, Newfoundland (Dec.,
 1927).

Fulica atra (typica) Helms, Dansk Orn. Foren. Tidskr., 11, p. 172, 1917—
 Angmagsalik, Greenland (May 5, 1914).

Fulica atra atra Helms, Medd. Grønland, 58, p. 241, 1926—Angmagsalik
 (May 5, 1914); Austin, Auk, 46, p. 208, 1929—Anatalak Bay and Separation
 Point, Sandwich Bay, Labrador (December, 1927); Peters, Bds.
 World, 2, p. 211, 1934 (range).

Range.—The greater part of Europe and Asia south to the Mediterranean, India, and Japan. Accidental in Greenland (Kangek; Nanortalik [Oct. 26, 1881]; Julianehaab; Angmagsalik [May 5, 1914], Labrador (Anatalak Bay and Sandwich Bay, December, 1927), and Newfoundland (Exploits Harbor, December, 1927).

Field Museum Collection.—1: Labrador (Tangnaivik Island, Anatalak Bay, 1).

****Fulica americana americana* Gmelin. AMERICAN COOT.**

Fulica americana Gmelin, Syst. Nat., 1, (2), p. 704, 1789—based on “Cinereous Coot” Latham, Gen. Syn. Bds., 3, (1), p. 279; North America (type in Leverian Museum, its present location unknown);² Hartlaub, Journ. Orn., 1, “1853,” Extraheft, p. 87, 1854—North America to Mexico and the West Indies (monog.); Sharpe, Cat. Bds. Brit. Mus., 23, p. 221, 1894 (monog.); Winge, Medd. Grønland, 21, p. 147, 1898—Christianshaab, Greenland; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 329, 1903—North America to Panama; Riley, in Shattuck, The Bahama Islands, p. 360, 1905—Abaco, New Providence, and Rum Cay (breeding); Carriker, Ann. Carnegie Mus., 6, p. 412, 1910—Costa Rica (Juan Viñas, San Juan, Las Concovas); Barbour, Mem. Nutt. Orn. Cl., 6, p. 57, 1923—Cuba (winter visitor); Bent, Bull. U. S. Nat. Mus., 135, p. 358, 1926 (range, life hist.).

Fulica cinerea Bonnaterre, Tabl. Enc. Méth., Orn., livr. 47, p. 62, 1791—based on “Cinereous Coot” Latham, Gen. Syn. Bds., 3, (1), p. “276” [=279]; North America.

Fulica wilsoni Stephens, in Shaw, Gen. Zool., 12, (1), p. 236, 1824—new name for *Fulica americana* Gmelin.

¹ *Licornis* Bonaparte (Ann. Sci. Nat., (4), Zool., 1, p. 150, 1854) is a nomen nudum.

² The type did not come to the Vienna Museum.

Fulica leucopyga Wagler, Isis, 1831, Heft 4, col. 518, 1831—Mexico (type in Munich Museum examined).

Fulica americana americana McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 11, 1927—Maria Madre, Tres Marias Islands; Grinnell, Univ. Calif. Pub. Zool., 32, p. 88, 1928—Lower California; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 495, 1928—Port de Paix, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 138, 1931—Hispaniola (crit.); Peters, Bull. Mus. Comp. Zool., 71, p. 302, 1931—Almirante and Changuinola, Panama; Bradlee and Mowbray, Proc. Bost. Soc. N. H., 39, p. 314, 1931—Bermudas; Griscom, Bull. Amer. Mus. N. H., 64, p. 123, 1932—Guatemala; idem, Bull. Mus. Comp. Zool., 78, p. 305, 1935—Panama (Veraguas; Chiriquí Lagoon); Peters, Bds. World, 2, p. 212, 1934 (range); Danforth, Journ. Agric. Univ. Puerto Rico, 19, p. 448, 1935—South Gate Pond, St. Croix, Virgin Islands (April 21, 1934; crit.); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 164, 1938—Lake Olomega, Lake Ilopango, and Lake Channmico, El Salvador.

Range.—Breeds from central British Columbia, southern Mackenzie, central Saskatchewan, Ontario, southern Quebec, and New Brunswick south to southern Lower California, Tamaulipas, Arkansas, Tennessee, and New Jersey, and sporadically in Florida; also in southern Mexico, Guatemala, Honduras, and Nicaragua; winters from the southern half of its breeding range south to Panama and the West Indies, at least to the northern Greater Antilles;¹ accidental in Alaska (Fort Yukon), Greenland (Christianshaab), Nova Scotia, and Bermuda.

Field Museum Collection.—33: Massachusetts (Great Island, 1; Duxbury, 1); Connecticut (East Hartford, 1); Wisconsin (Beaver Dam, 9; Fox Lake, 1); Illinois (Fults, Monroe County, 4; Liverpool, 1; Orland, Cook County, 2); Indiana (Bluffton, 1); Georgia (Montezuma, 1); Florida (Loxahatchee Marsh, 1; Kissimmee River, 1); Texas (Brownsville, 1); Cuba (Palacios, 1); Haiti (Port de Paix, 2); Bahamas (Andros Island, 1); Guatemala (Lake Atitlan, 1; Laguana, 2); El Salvador (Sitio del Niño, San Salvador, 1).

Conover Collection.—15: Illinois (Henry, 1; Highland Park, 1); Utah (Brigham, 12); Panama (Darkland, Almirante, 1).

***Fulica americana grenadensis* Riley.² GRENADA COOT.**

¹ Owing to its being often confused with *F. a. grenadensis* and *F. caribaea* the southward extension of the winter range of the American Coot cannot be given with absolute exactness. Reliable records are from Cuba, Hispaniola, and St. Croix.

² *Fulica americana grenadensis* Riley: Similar to *F. a. americana*, but bill much heavier and frontal shield more swollen and larger. Wing (female), 184½; tail, 47½; culmen with frontal shield, 50½; depth of bill at base, 17½ (Riley, l.c.).

According to the describer, this form is very close to *F. a. columbiana*, but differs by proportionately heavier bill (which, besides, is deeply wrinkled longi-

Fulica americana grenadensis Riley, Proc. Biol. Soc. Wash., 29, p. 103, 1916—Isle de Rhonde, Grenadines (type in U. S. National Museum); Peters, Bds. World, 2, p. 212, 1934 (range).

Fulica americana (not of Gmelin) Wells, Proc. U. S. Nat. Mus., 9, p. 629, 1886—Grenada (Grand Etang, Lake Antoine) and Isle de Rhonde (breeding); Sharpe, Cat. Bds. Brit. Mus., 23, p. 221, 1894—part, spec. a", Grenada; Wells, Auk, 19, p. 244, 1902—Carriacou (breeding); Clark, Proc. Bost. Soc. N. H., 32, p. 247, 1905—Grenadines (Mustique, Mayreau, Union, Canouan, Carriacou, Isle de Rhonde) and Grenada (Grand Etang, Lake Antoine).

Range.—Island of Grenada, and the Grenadines, Lesser Antilles; (?) island of Jamaica, Greater Antilles.¹

****Fulica americana columbiana* Chapman.² COLOMBIAN COOT.**

Fulica americana columbiana Chapman, Bull. Amer. Mus. N. H., 33, p. 170, 1914—La Herrera, north of Bogotá, Cundinamarca, Colombia (type in the American Museum of Natural History, New York, examined); idem, l.c., 36, p. 220, 1917—La Herrera and La Olanda, Colombia; Peters, Bds. World, 2, p. 212, 1934—part, Andes of Colombia (Bogotá region).

Range.—Temperate zone of the Andes of Colombia (Bogotá region; Páramo de Purace, Cauca).

Field Museum Collection.—4: Colombia (La Holanda, 1; "Bogotá," 3).

Conover Collection.—2: Colombia (Páramo de Purace, Cauca, 2).

tudinally) and more swollen frontal shield. We are not acquainted with this race. With absolute certainty it is only known to inhabit Grenada and some of the Grenadines. It is not improbable that the coot from Brabon Bay, St. Vincent, recorded by Lister (Ibis, 1880, p. 44) s. n. *Fulica americana* was an example of the present form which may be expected to occur there occasionally as a straggler. According to Feilden (Ibis, 1889, pp. 480, 499), a species of coot existed on the island of Barbados, but it seems to have become extinct (cf. Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 528, 1928). Whether it pertained to *F. a. grenadensis* or *F. caribaea* cannot be determined in the absence of material.

¹ Danforth (Auk, 45, p. 482, 1928) recorded *F. a. grenadensis* from Jamaica on the basis of two specimens collected by him on Long Pond, near Hodges, on August 9, 1926. While their measurements very closely agree with those of Riley's type, direct comparison of adequate series from Jamaica and the Grenadines seems imperative in view of the wide separation of these islands. Other Jamaican breeding records under the name of *F. americana* are by Scott (Auk, 9, pp. 12, 212, 1892) and Field (Auk, 11, p. 122, 1894). A specimen taken at Cabañas, Cuba, on May 23, 1900, by Palmer and Riley is stated by Wetmore and Swales (Bull. U. S. Nat. Mus., 155, p. 139, note 48, 1931) to be *F. a. americana*.

² *Fulica americana columbiana* Chapman: Similar to *F. a. americana*, but tarsi and toes longer; bill heavier and longer; frontal shield larger, higher, rounded posteriorly and more clearly defined from the bill anteriorly; bill, in breeding specimens, yellowish; white ends to inner secondaries on average less extensive and confined largely to the inner web of the feathers. Wing, 190–205; tarsus, 60–64; middle toe, 90–96; culmen from base of shield, 47–54; depth of bill at base, 10½–12; length of shield, 15–18; width of shield, 8–12.

This form is very different from *F. caribaea* by reason of its smooth, dark maroon frontal shield being sharply defined from the bill instead of forming, as in

****Fulica americana peruviana* Morrison.¹ PERUVIAN COOT.**

Fulica americana peruviana Morrison, Bull. Brit. Orn. Cl., 59, p. 56, 1939—Lake Junín, Junín, Peru (type in British Museum examined).

Fulica chilensis (not of Gay, 1848) Hartlaub, Journ. Orn., 1, "1853," Extraheft, p. 81, 1854—La Paz, Bolivia (descr.); Schlegel, Mus. Pays-Bas, Ralli, p. 63, 1865—part, spec. a, Cochabamba, Bolivia.

Fulica ardesiaca (not of Tschudi) Selater and Salvin, Exot. Orn., p. 113, 1868—part ("nuptial plumage"), Bolivian Andes (La Paz); iidem, Proc. Zool. Soc. Lond., 1868, p. 464—part, Bolivia; iidem, l.c., 1869, p. 156—Laguna Tungasuca, Dept. Cuzco, Peru; Allen, Bull. Mus. Comp. Zool., 3, p. 357, 1876—Moho, Carapata, and Achecacha, Lake Titicaca; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 641—Bolivian Andes; Taczanowski, Orn. Pér., 3, p. 328, 1886—part, Laguna de Tungasuca and Lake Titicaca, Peru; Selater, Proc. Zool. Soc. Lond., 1886, p. 402—Huasco, Tarapacá, Chile; Philippi, Ornith., 4, p. 160, 1888—Antofagasta, Chile; Heine and Reichenow, Nomencl. Mus. Hein. Orn., p. 317, 1888—La Paz, "Valdivia" [= Bolivia]; Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1890—Lake Titicaca; Selater, Proc. Zool. Soc. Lond., 1891, p. 136—Sacayá, Tarapacá, Chile; Sharpe, Cat. Bds. Brit. Mus., 23, p. 217, 1894—part, spec. a, b, d-g, Ecuador ("Cotta"=Colta), Peru (Laguna de Tungasuca), and Chile (Sacayá, Tarapacá); Lane, Ibis, 1897, p. 302—Sacayá, Chile; Hartert, Nov. Zool., 5, p. 503, 1898—Lake Yaguarcocha, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 40, 1900—part, spec. ex Laguna de Yaguarcocha, Ecuador (shield red-brown, feet greenish); Goodfellow, Ibis, 1902, p. 230—marshes near Quito, Ecuador ("bill and

the Caribbean bird, a basal inflation of the latter. A specimen from Páramo de Purace is marked by the collector as having "the legs grayish green with light red near the feathers."

Five additional specimens from La Herrera, Colombia, examined.

¹ *Fulica americana peruviana* Morrison: Very near *F. a. columbiana*, but larger, with longer bill; frontal plate, though of the same shape and color, decidedly larger; without any red at base of tarsus; inner secondaries rarely with white apical markings. The protuberant frontal plate is of a deep chestnut or mahogany red, while the legs and feet, according to Morrison and other field naturalists, are bright green in life. Birds from various parts of the range agree well together except that those from Bolivia and Argentina are larger and have the frontal shields markedly more expanded. Specimens from Ecuador (Colta, Yaguarcocha), by slightly smaller plate, exhibit a tendency towards *columbiana*, but one of the Tarapacá birds has even a smaller shield.

	Wing	Bill	Shield
Ecuador	210-224	34-35	19
Peru	210-225	36-37	24-28
Peru (Lake Titicaca)	210	37	21
Chile (Tarapacá)	218-225 (once 230)	37-40	20-24 (once 17)
Bolivia (Cochabamba)	237, 245, 250
Argentina (Antofagasta)	240

Additional material examined.—Ecuador: Laguna de Colta, 2.—Peru: Lake Junín, Junín, 3; Laguna de Tungasuca, Dept. Cuzco, 2.—Bolivia: Lake Titicaca, 1; Chililaya, Lake Titicaca, 5.—Chile, Tarapacá: Sitani, 4; Cueva Negra, 1; Sacayá, 2.

forehead pink, legs bright green"); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 20, 1922—part, La Carolina and Yaguarcocha, Ecuador ("shields red, legs green"); Dabbene, El Hornero, 2, p. 290, 1922—Laguna de Antofagasta, Terr. de los Andes, Argentina; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 363, 1932—Tarapacá and Antofagasta, Chile; Peters, Bds. World, 2, p. 212, 1934 (in part).

Fulica sp. Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 41, 1900—Laguna de Culebrillas, Ecuador (young).

Fulica americana columbiana (not of Chapman, 1914) Chapman, Bull. Amer. Mus. N. H., 55, p. 179, 1926—Yaguarcocha, Ecuador; Peters, Bds. World, 2, p. 212, 1934—part, Andes of Ecuador.

Range.—Temperate and Puna zones of the Andes from southern Colombia (Narino) to Bolivia, northern Chile (provinces of Tarapacá and Antofagasta), and extreme northwestern Argentina (Laguna de Antofagasta, Terr. de los Andes).

Field Museum Collection.—1: Peru (Lake Junín, 1).

Conover Collection.—17: Colombia (Narino, 2); Ecuador (Laguna Yaguarcocha, 3; San Fernando, Azuay, 1); Peru (Chucuito, Puno, 2; Puno, Puno, 1); Bolivia (Vacas, Cochabamba, 5; Colomi, Cochabamba, 2); Argentina (Antofagasta, Catamarca, 1).

**Fulica caribaea* Ridgway.¹ CARIBBEAN COOT.

Fulica caribaea Ridgway, Proc. U. S. Nat. Mus., 7, p. 358, 1884—St. John and Guadeloupe (type, from St. John, Virgin Islands, in U. S. National Museum); Cory, Bds. W. Ind., p. 259, 1889 (descr.); idem, Auk, 8, p. 46, 1891—Anguilla and Antigua; idem, Cat. W. Ind. Bds., p. 91, 1892—Porto Rico, St. John, Antigua, and Guadeloupe; Sharpe, Cat. Bds. Brit. Mus., 23, p. 224, 1894 (descr.); Riley, Smiths. Misc. Coll., 47, p. 279, 1904—Antigua and Barbuda (meas.); Wetmore, Auk, 34, p. 57, 1917—Culebra, near Porto Rico; Peters, Bull. Mus. Comp. Zool., 61, p. 403, 1917—El Batey, Dominican Republic; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 41, 1922—Lagunillas, Zulia, Venezuela; Peters, Auk, 44, p. 534, 1927—Anguilla; Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 346, 1927—Porto Rico, St. Croix, Culebra, and St. John (monog.); idem, Auk, 45, p. 370, 1928—Carriacou; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 495, 1928—Trou Calman, Haiti; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 312, 1928—Guerra, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 139, 1931—Hispaniola (monog.); Beatty, Journ. Dept. Agric. Porto Rico, 15, p. 22, 1931—Guánica Lagoon, Porto Rico; Danforth, l.c., p. 51, 1931—Porto Rico (local records); idem, Auk,

¹ *Fulica caribaea* Ridgway differs from the races of *F. americana* by the more expanded, whitish or yellowish frontal shield with somewhat wrinkled surface.

The characters of this coot do not strike one as being of specific value, inasmuch as certain examples have been recorded that seem to be more or less intermediate with the American Coot (cf. Danforth, Journ. Agric. Univ. Puerto Rico, 19, p. 448, 1935). However, until its range and that of *F. a. grenadensis* are more satisfactorily worked out, it would seem unwise to reduce it to subspecific rank.

51, p. 358, 1934—Antigua; Peters, Bds. World, 2, p. 212, 1934 (range); Danforth, Journ. Agric. Univ. Puerto Rico, 19, p. 448, 1935—St. Croix (crit.); (?) Belcher and Smooker, Ibis, 1935, p. 285—Caroni Marshes, Trinidad (nest and eggs descr.); Bond, Auk, 56, p. 194, 1939—Montserrat.

Fulica americana (not of Gmelin) (?) Léotaud, Ois. Trinidad, p. 504, 1866—Trinidad; Sundevall, Oefvers. Vetensk. Akad. Handl., 26, p. 601, 1869—Porto Rico; Gundlach, Journ. Orn., 26, p. 190, 1878—Porto Rico (Laguna de Guánica, Camuy, Rio Arecibo; nesting); idem, Anal. Soc. Esp. Hist. Nat., 7, p. 394, 1878—Porto Rico (same localities); Cory, Cat. W. Ind. Bds., p. 91, 1892—Porto Rico and St. Croix; Struthers, Auk, 40, p. 472, 1923—Porto Rico.

Fulica americana americana Wetmore, U. S. Dept. Agr. Bull., 326, p. 34, 1916—Porto Rico (Guánica, Manati) and Culebra (food, habits).

Fulica caribaea major Danforth, Auk, 42, p. 56, 1925—Cartagena Lagoon, Porto Rico (type in coll. of Cornell University, Ithaca, New York); idem, Journ. Dept. Agric. Porto Rico, 10, p. 62, 1926—Cartagena Lagoon (habits).

Fulica caribaea subsp. Danforth, Auk, 46, p. 363, 1929—Hispaniola (Laguna del Salodillo, Haina, Etang Miragoane, Artibonite, Gonaives).

Fulica americana grenadensis (not of Riley) Beatty, Journ. Dept. Agric. Porto Rico, 14, p. 140, 1930—St. Croix (breeding).

Range.—Resident in the Greater and Lesser Antilles (known from Hispaniola, Puerto Rico, Culebra, St. John, St. Croix, Anguilla, Barbuda, Montserrat, Antigua, and Guadeloupe); also recorded from Venezuela (Lagunillas, Zulia);¹ (?) island of Trinidad.²

Field Museum Collection.—9: Haiti (Le Coup, 1; Port de Paix, 4); Anguilla, 4.

Conover Collection.—6: Virgin Islands (St. Croix, 5); Venezuela (Lagunillas, Zulia, 1).

**Fulica ardesiaca* Tschudi.³ SLATE-COLORED COOT.

¹ The single bird from Lagunillas, Venezuela, has larger feet and a heavier bill than West Indian specimens.

² The subspecific determination of the Trinidad Coot, which was found breeding in the Caroni Marshes by Belcher and Smooker, remains in doubt. No specimen has been examined by any recent naturalist. From the description of Léotaud, who calls the frontal shield "blanc rosé," it would seem to be allied to *F. caribaea*, although on Grenada and the Grenadines *F. a. grenadensis* is supposed to breed. It is evident that we have yet much to learn about the breeding ranges of the West Indian coots and their inter-relationship.

³ *Fulica ardesiaca* Tschudi: Superficially resembling *F. americana peruviana* Morrison, but immediately recognizable by the flatter and more expanded frontal plate being white to primrose yellow (fading to isabella color in skins), white bill, and slate-gray legs. Wing, 200–225; tail, 57–60; bill, 36–38.5; shield, 20 (female)–30 (male).

Though regarded by authors as the "non-nuptial plumage" of *F. a. peruviana*, this coot seems to be specifically distinct. Morrison found both breeding on Lake Junín, and the same is the case on certain lakes in the highlands of Ecuador (Colta

Fulica ardesiaca Tschudi, Arch. Naturg., 9, (1), p. 389, 1843—"ad fluminum ripas et in Antium lacunis,"=Lake Junín, Peru (type in Neuchâtel Museum examined); idem, Unters. Faun. Peru., Aves, p. 303, 1846—Lake Junín, Peru; Sclater and Salvin, Exot. Orn., p. 113, pl. 57, 1868—part ("non-nuptial plumage"), Peru to Ecuador (crit.); idem, Proc. Zool. Soc. Lond., 1868, p. 464—part, Peru (Tambo Valley) and Ecuador (between Riobamba and Mocha) (monog.); Taczanowski, l.c., 1874, p. 559—Junín and "Chorillos," Peru; idem, Orn. Pér., 3, p. 328, 1886—part, Junín and "Chorillos"; Sharpe, Cat. Bds. Brit. Mus., 23, p. 217, 1894—part, spec. c, Laguna de Tambo, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 40, 1900—part, spec. ex Laguna de Kingora (Sigsig), Ecuador (shield yellowish white, feet slate-gray); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 50—Ingapirca, Junín, Peru; Chubb, Ibis, 1919, p. 55—Colta, Riobamba, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 20, 1922—part, Lake Mica (Antisana), Ecuador ("pale shield"); Chapman, Bull. Amer. Mus. N. H., 55, p. 179, 1926—Antisana, Ecuador; Peters, Bds. World, 2, p. 212, 1934 (in part).

Fulica chilensis (not of Gay) Sclater, Proc. Zool. Soc. Lond., 28, p. 82, 1860—between Riobamba and Mocha, Ecuador ("frontal shield delicately orange, blending into lemon on sides and back; legs and feet delicate slate-color;" spec. now in Bremen Museum); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 176—Laguna de Tambo, Arequipa (crit.).

Fulica sp. inc. Goodfellow, Ibis, 1902, p. 230—lakes near Cotopaxi, Ecuador.

Lysca ardesiacea Reichenbach, Av. Syst. Nat., p. xxi, Oct., 1852.

Range.—Temperate and Puna zones of the Andes of southern Colombia (Narino), Ecuador and Peru.

Field Museum Collection.—4: Peru (Lake Junín, 4).

Conover Collection.—9: Colombia (Narino, 1) and Ecuador (Cerro Antisana, Pichincha, 2; Laguna Yaguarcocha, Imbabura, 6).

**Fulica armillata* Vieillot.¹ RED-GARTERED COOT.

Fulica armillata Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 12, p. 47, 1817—based on "Focha de ligas roxas" Azara, No. 448, Paraguay; Lesson, Rev. Zool., 5, p. 209, 1842—Valparaiso, Chile; idem, Echo du Monde Sav., 9, 2nd sém., col. 253, 1842—Valparaiso; Hartlaub, Naumannia, 3, p. 217, 1853—Rio de Valdivia, Chile; idem, Journ. Orn., 1, "1853," Extraheft, p. 82, 1854—Chile (Valdivia, Valparaiso), Brazil (Ilha de Santa Catharina), and "Paraguay (Bonpland)" [= Misiones]² (monog.); Burmeister,

and Yaguarcocha). No intermediates between the red-fronted and white-fronted birds are known. The type of *F. ardesiaca*, courteously forwarded by Dr. Fuhrmann to the senior author, was found to agree closely with a female from Laguna de Tambo, Arequipa.

Additional material examined.—Peru: Lake Junín, 4; Laguna de Tambo, Arequipa, 1.—Ecuador: Colta, 1.

¹ A possible synonym is *Fulica chloropoides* King (Zool. Journ., 4, p. 95, 1929—Straits of Magellan). The diagnosis is unsatisfactory, and the type has been lost.

² The two Patagonian specimens of d'Orbigny's mentioned by Hartlaub pertain to *F. leucoptera* (cf. Oustalet, Miss. Sci. Cap Horn, Zool., 6, p. B. 136, 1891).

Syst. Uebers. Th. Bras., 3, p. 390, 1856—Santa Catharina, Brazil; idem, Journ. Orn., 8, p. 262, 1860—Mendoza and Paraná, Argentina; idem, Reise La Plata St., 2, p. 505, 1861—same localities; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 136, 1865—Chile; Selater, Proc. Zool. Soc. Lond., 1867, pp. 334, 339—Chile; idem and Salvin, l.c., 1868, p. 145—Conchitas, Buenos Aires; idem, l.c., 1868, p. 465 (monog.); iidem, Exot. Orn., p. 115, pl. 58, 1868 (monog., fig. of a Chilean spec.); Pelzeln, Orn. Bras., 3, p. 318, 1870—Irisanga, São Paulo; Berlepsch, Journ. Orn., 22, p. 276, 1874—Blumenau, Santa Catharina; Doering, Period. Zool. Arg., 1, p. 257, 1874—Rio Guayquiraro, Corrientes; Reed, Anal. Univ. Chile, 49, p. 566, 1877—Cauquenes, Colchagua, Chile; Durnford, Ibis, 1877, p. 195—north of Buenos Aires; idem, l.c., 1878, pp. 66, 401—south of Buenos Aires (eggs descr.), and Patagonia (Sengel and Sengelen rivers); Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 55, 1881—Rio Colorado and Rio Negro; Barrows, Auk, 1, p. 277, 1884—Concepción del Uruguay, Entre Ríos, and Puan and Carhué, Buenos Aires; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 88, 1884—Arroyo Collon-gueyú, Buenos Aires; Withington, Ibis, 1888, p. 471—Lomas de Zamora, Buenos Aires; Selater and Hudson, Arg. Orn., 2, p. 157, 1889—Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 406, 1890—Córdoba; Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 319, 1890—Rio Chico de Santa Cruz, Rio Deseado, and Rio Singuer, Patagonia; Oustalet, Miss. Sci. Cap Horn, Zool., 6, p. B. 136, 1891—Rio Gallegos and Lagoon de Skyring Water, Straits of Magellan; Holland, Ibis, 1892, p. 209—Estancia Espartillar, Buenos Aires; Sharpe, Cat. Bds. Brit. Mus., 23, p. 218, 1894—Chile (Valparaiso, Talcaguano, "Tarapacá" [errore]), and "Lake Titicaca" [errore]; Reed, Anal. Univ. Chile, 93, p. 209, 1896—Chile; Selater, Ibis, 1897, p. 302 (note)—"Tarapacá," Chile (errore); Schalow, Zool. Jahrb., Suppl., 4, p. 668, 1898—La Serena (Coquimbo), El Pózo (Lago Llanquihue), and Susanna Cove, Straits of Magellan, Chile; Ihering, Rev. Mus. Paul., 3, p. 419, 1899—São Sebastião, Iguapé, and Piracicaba, São Paulo; idem, Anuario Est. Rio Grande do Sul, 16, p. 148, 1899—Mundo Novo and São Lourenço, Rio Grande do Sul; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 215, 1902—Tucumán; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, Orn., p. 51, 1904—Rio Chico, Rio Santa Cruz, Arroyo Eke, Rio Coy, and Rio Deseado, Patagonia; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 69, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 32, 1907—São Paulo (São Sebastião, Iguapé) and Patagonia (Carmen); Hartert and Venturi, Nov. Zool., 16, p. 259, 1909—La Plata and Barracas al Sud, Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 198, 1910 (range in Argentina); Grant, Ibis, 1911, p. 462—Los Ynglases, Ajó, Buenos Aires; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 28, p. 184, pls. 1, 2, 1916—Prov. Buenos Aires (descr. young, plumages, habits); Barros, Rev. Chil. Hist. Nat., 23, p. 17, 1919—Nilahue, Curicó, Chile; Gibson, Ibis, 1920, p. 45—Cape San Antonio, Buenos Aires (habits, nest, eggs); Tremoleras, El Hornero, 2, p. 12, 1920—Uruguay (Montevideo, Canelones, San José, Maldonado); Renard, l.c., p. 59, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Paessler, Journ. Orn., 70, p. 435, 1922—Coronel, Chile; Pereyra, El Hornero, 3, p. 173, 1923—Zelaya, Buenos Aires; Peters,

- Bull. Mus. Comp. Zool., 65, p. 289, 1923—Huanuluan, Neluan, and Lake Nahuel Huapi, Rio Negro; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 602, 1924—Prov. Buenos Aires; Bennett, El Hornero, 3, p. 283, 1924—near Port Stanley, Falkland Islands; idem, Ibis, 1926, p. 309—near Port Stanley (May 23, 1923); Wetmore, Bull. U. S. Nat. Mus., 133, p. 118, 1926—Argentina (Lavalle, Buenos Aires; General Roca, Rio Negro), Uruguay (near San Vicente), and Chile (Concon); idem, Univ. Calif. Pub. Zool., 24, p. 423, 1926—Loma Partida, Rio Negro; Wilson, El Hornero, 3, p. 351, 1926—General López, Santa Fé; Smyth, l.c., 4, p. 4, 1927—Cacharí, Buenos Aires (eggs descr.); Bullock, Rev. Chil. Hist. Nat., 33, p. 204, 1929—Angol, Malleco, Chile; Barros, l.c., p. 355, 1929—Cordillera of Aconcagua, Chile; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 365, 1932—Chile; Castellanos, El Hornero, 4, p. 373, 1931—Valle de los Reartes, Córdoba; Peters, Bds. World, 2, p. 212, 1934 (range).
- Fulica galeata* (not *Crex galeata* Lichtenstein) Darwin, Zool. Beagle, 3, p. 133, 1841—Concepción, Chile; Fraser, Proc. Zool. Soc. Lond., 11, p. 118, 1843—lakes of Quintero and Santo Domingo, Chile; Yarrell, l.c., 15, p. 54, 1847—Chile (eggs descr.).
- Fulica chilensis* Gay, Hist. Fís. Pol. Chile, Atlas, pl. 10, 1848; Des Murs, l.c., 8, p. 474, 1854—Chile (type probably in Paris Museum); Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 196, 1855—vicinity of Santiago, Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 314, 1860—Chile (nesting habits); Frauenfeld, Verh. Zool. Bot. Gesells. Wien, 10, Abhandl., p. 638, 1860—Lake Aculeo, Santiago; Philippi and Landbeck, Anal. Univ. Chile, 19, p. 506, 1861—Chile (crit.); Landbeck, Arch. Naturg., 28, pp. 221, 224, 226, 1862—Chile (monog.); Schlegel, Mus. Pays-Bas, Rallí, p. 63, 1865—part, spec. Nos. 2-4, Santiago, Chile; Philippi, Anal. Univ. Chile, 31, p. 279, 1868—Valdivia to central provinces, Chile.
- Fulica frontata* G. R. Gray, List Spec. Bds. Brit. Mus., 3, p. 124, 1844—Valparaíso, Chile (nomen nudum); Sclater and Salvin, Exot. Orn., p. 116 (in text, with fig. of head), 1868 (type in British Museum examined).¹
- Fulica chloropoides* (not of King) Boeck, Naumannia, 1855, p. 510—Calle-Calle River, Valdivia, Chile; Waugh and Lataste, Act. Soc. Scient. Chili, 4, p. lxxxix, 1894—Peñaflor, Santiago; idem, l.c., 4, p. clxxiii, 1895—San Alfonso (Quillota), Valparaíso; Lataste, l.c., 5, pp. lxii, lxiii, 1895—Junquillos (San Carlos), Nuble, Chile.
- Fulica leucopygia* (not *Fulica leucopyga* Wagler) Sharpe, Proc. Zool. Soc. Lond., 1881, p. 14—Talcaguano, Chile (spec. examined).

Range.—Southeastern Brazil, from São Paulo to Rio Grande do Sul; Uruguay; Paraguay; Argentina, from the banks of the Rio Paraná and Entre Ríos west to the foot of the Andes, south to Tierra del Fuego; Chile north to Coquimbo;² accidental on the

¹ This specimen which I have compared in the British Museum is certainly but an individual mutation with an unusually developed frontal shield, as has already been recognized by Sclater and Salvin.

² Sclater's record from Tarapacá is erroneous.

Falkland Islands (one specimen recorded from near Port Stanley, May 23, 1923).¹

Field Museum Collection.—3: Chile (Puyehue, Temuco, 1; Riñihue, Valdivia, 1; Lake Gualletué, Cautín, 1).

Conover Collection.—11: Argentina (Cambacérès, Buenos Aires, 1; Tunuyán, Mendoza, 1); Chile (Laguna del Inca, Santiago, 1; Batuco, Santiago, 1; Angol, Bio Bio, 2; Casa Richards, Rio Nirehuau, 3; Rio Ciaike, Magallanes, 2).

****Fulica leucoptera* Vieillot. WHITE-WINGED COOT.**

Fulica leucoptera Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 12, p. 48, 1817—based on "Focha" Azara, No. 447, Paraguay and Buenos Aires; Hartlaub, Syst. Ind. Azara, p. 28, 1847—Paraguay (crit.); Burmeister, Journ. Orn., 8, p. 262, 1860—Paraná River, Argentina; idem, Reise La Plata St., 2, p. 505, 1861—near Paraná, Entre Ríos; Sclater and Salvin, Exot. Orn., p. 119, pl. 60,² 1868—Uruguay (Santa Lucia), Argentina (Paraná), Bolivia (San Miguel, Chiquitos), and Chile (monog.); idem, Proc. Zool. Soc. Lond., 1868, p. 648 (monog.); Durnford, Ibis, 1877, p. 95—Prov. Buenos Aires; idem, Ibis, 1878, p. 67—Buenos Aires (eggs descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 641—Chiquitos, Bolivia; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 55, 1881—Rio Colorado and Rio Negro; White, Proc. Zool. Soc. Lond., 1883, p. 42—Cosquin, Córdoba; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 88, 1884—Arroyo Collon-gueyú, Buenos Aires; Barrows, Auk, 1, p. 277, 1884—Puan and Carhué, Buenos Aires; Sclater, Proc. Zool. Soc. Lond., 1886, p. 403—Huasco, Tarapacá, Chile; Withington, Ibis, 1888, p. 472—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 2, p. 158, 1889—Argentina (habits); Ridgway, Proc. U. S. Nat. Mus., 12, p. 137, 1889—Sandy Point, Straits of Magellan; Holland, Ibis, 1890, p. 425—Estancia Espartillar, Buenos Aires; Oustalet, Miss. Scient. Cap Horn, Zool., 6, p. B.134, 1891—Lapataia, Beagle Channel, and Patagonia; Holland, Ibis, 1892, p. 210—Estancia Espartillar, Buenos Aires; Aplin, Ibis, 1894, p. 205—Uruguay; Sharpe, Cat. Bds. Brit. Mus., 23, p. 224, 1894—"Lake Titicaca, Peru" (errore), Tarapacá (Sacayá), Buenos Aires (Quilmes, La Plata), and Patagonia; Reed, Anal. Univ. Chile, 93, p. 209, 1896—Chile; Lane, Ibis, 1897, p. 302—Sacayá, Tarapacá, Chile; Schalow, Zool.

¹ Birds from Chile agree with others from Argentina and Rio Grande do Sul, while a single unsexed specimen from Santa Catharina is much smaller, with a remarkably restricted frontal plate. It is, no doubt, merely a dwarfed individual.

Additional material examined.—Brazil: Irisanga, São Paulo, 1; Blumenau, Santa Catharina, 1; Caipyrá, Rio Grande do Sul, 1.—Argentina: Buenos Aires, 3; Casa Lata, Neuquen, 1.—Chile: Valparaíso, 1; San Alfonso, Quillota, Valparaíso, 2; Peñaflor, Santiago, 1; Hacienda de Convento, near San Antonio, Santiago, 1; Junquillos (San Carlos de Chillan), Nuble, 3; Talcaguano, Concepción, 1; Desagüe (near Puerto Montt), Llanquihue, 2; unspecified, 3.

² The figure represents the type of *F. stricklandi* in the Bremen Museum.

Jahrb., Suppl., 4, p. 667, 1898—Lago Llanquihue, Chile; Ihering, *Anuario Est. Rio Grande do Sul*, 16, p. 148, 1899—Rio Grande do Sul, Brazil; Salvadori, *Ann. Mus. Civ. Stor. Nat. Genova*, 40, p. 626, 1900—Ushuaia, Tierra del Fuego; Arribáizaga, *Anal. Mus. Nac. Buenos Aires*, 8, p. 159, 1902—Trelew, western Chubut; Lillo, l.c., p. 215, 1902—Lules, Famaillá, and Manantial, Tucumán; idem, *Rev. Letr. Cienc. Soc.*, 3, No. 13, p. 70, 1905—same localities; Lönnberg, *Ibis*, 1903—Tatarenda, Tarija, Bolivia; Scott and Sharpe, *Rep. Princet. Univ. Exp. Patagonia*, 2, Orn., p. 55, 1904—Patagonia (Rio Coy, Palaike, Arroyo Eke, Rio Chico); Ihering, *Cat. Faun. Braz.*, 1, p. 33, 1907 (range); Crawshaw, *Bds. Tierra del Fuego*, p. 115, 1907—Useless Settlement; Hartert and Venturi, *Nov. Zool.*, 16, p. 259, 1909—Entre Ríos (La Soledad) and Buenos Aires (Barracas al Sud); Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 198, 1910 (range in Argentina); Bertoni, *Faun. Parag.*, p. 37, 1914—Paraguay; Dabbene, *El Hornero*, 1, p. 34, 1917—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 12, 1920—Uruguay (Montevideo, Canelones, Colonia, Maldonado); Gibson, *Ibis*, 1920, p. 48—Cape San Antonio, Buenos Aires (habits, nest, and eggs); Daguerre, *El Hornero*, 2, p. 261, 1922—Rosas, Buenos Aires; Paessler, *Journ. Orn.*, 70, p. 436, 1922—Coronel, Chile (breeding habits); Serié and Smyth, *El Hornero*, 3, p. 39, 1923—Santa Elena, Entre Ríos (eggs descr.); Giacomelli, l.c., p. 81, 1923—La Rioja; Pereyra, l.c., p. 162, 1923—Zelaya, Buenos Aires; Marelli, *Mem. Min. Obr. Públ. for 1922–23*, p. 602, 1924—Prov. Buenos Aires; Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 120, 1926—Buenos Aires (Lavalle, Carhué, near Guaminí) and Chile (Rio Aconcagua, near Concon); Wilson, *El Hornero*, 3, p. 351, 1926—General López, Santa Fé; Smyth, l.c., 4, p. 4, 1927—Cacharí, Buenos Aires, and Santa Elena, Entre Ríos (eggs descr.); Friedmann, *Bull. Mus. Comp. Zool.*, 68, p. 161, 1927—Entre Ríos (Bovril Islands, Rio Paraná; Saladero M. Cabal, San Joaquin, La Noria) and Buenos Aires (Rio Ajó, Lavalle); Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, 19, p. 366, 1932—Chile (range); Marelli, *El Hornero*, 5, p. 194, 1933—Fortín Chaco, Saldungaray, and Sierra de la Ventana, Buenos Aires; Reynolds, l.c., 5, p. 351, 1934—Viamonte, Tierra del Fuego; Peters, *Bds. World*, 2, p. 213, 1934 (range); Laubmann, *Verh. Orn. Ges. Bay.*, 20, p. 274, 1934—Est. La Geraldina, Santa Fé.

Fulica gallinuloides King, *Zool. Journ.*, 4, p. 96, 1828—Straits of Magellan (descr. of young; type in Edinburgh Museum; cf. Sclater, *Proc. Zool. Soc. Lond.*, 1878, p. 291; Gibson, *Proc. Roy. Phys. Soc. Edin.*, 4, pp. 184–185, 1878; and Stenhouse, *Nov. Zool.*, 35, p. 276, 1930).

Fulica stricklandi Hartlaub, *Journ. Orn.*, 1, "1853," Extraheft, p. 86, 1854—Santa Lucia, Uruguay, and San Miguel, Chiquitos, Bolivia (type from an unknown locality, in the Bremen Museum); Sclater, *Proc. Zool. Soc. Lond.*, 1867, pp. 334, 339—Chile (crit.).

Fulica chloropoides (not of King) Philippi and Landbeck, *Anal. Univ. Chile*, 19, p. 503, 1861—Chile and Arica, Peru (monog.); Landbeck, *Arch. Naturg.*, 28, (1), pp. 218, 224, 227, 1862—Magellan, Valdivia, Santiago, and Arica, Chile (monog.); Philippi, *Anal. Univ. Chile*, 31, p. 279, 1868—Chile; Gigoux, *Rev. Chil. Hist. Nat.*, 28, p. 84, 1924—Caldera, Atacama.

Range.—Southern South America from northern Chile (Arica), eastern Bolivia (Chiquitos and Tarija), and extreme southern Brazil (Rio Grande do Sul) south to Tierra del Fuego.¹

Field Museum Collection.—1: Chile (Penco, Concepción, 1).

Conover Collection.—12: Paraguay (265 km. west of Puerto Casado, 6); Chile (Batuco, Santiago, 1; Penco, Concepción, 1; Galvarino, Cautín, 1; Angol, Bio Bio, 3).

**Fulica rufifrons* Philippi and Landbeck.² RED-FRONTED COOT.

Tulica [sic] *rufifrons* Philippi and Landbeck, Anal. Univ. Chile, 19, p. 507, Oct., 1861—Chile=Prov. Santiago (cotypes in Museo Nacional, Santiago de Chile; cf. Gigoux and Looser, Bol. Mus. Nac. Santiago, 13, p. 26, 1930).

Fulica rufifrons Landbeck, Arch. Naturg., 28, (1), pp. 223, 225, 226, 1862—Chile (crit.); Philippi, Anal. Mus. Nac. Chile, 15, p. 71, 1902—Chile; Sharpe and Scott, Rep. Princet. Univ. Exp. Patagonia, 2, Orn., p. 54, 1904—Patagonia; Ihering, Rev. Mus. Paul., 5, "1901," p. 287, 1902—Iguapé, São Paulo, Brazil; idem, Cat. Faun. Braz., 1, p. 33, 1907—Iguapé, São Paulo; Hartert and Venturi, Nov. Zool., 16, p. 259, 1909—Barracas al Sud, Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 198, 1910 (range in Argentina); idem, l.c., 28, p. 189, pls. 1, 2, 1926—Prov. Buenos Aires (plumages); Wace, El Hornero, 2, p. 194, 1921—Falkland Islands; Daguerre, l.c., 2, p. 261, 1922—Rosas, Buenos Aires; Paessler, Journ. Orn., 70, p. 436, 1922—Coronel, Chile (breeding habits); Serié and Smyth, El Hornero, 3, p. 40, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 162, 1923—Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 602, 1924—Prov. Buenos Aires; Housse, Rev. Chil. Hist. Nat., 29, pp. 150, 227, 1925—San Bernardo, Santiago, and Isla la Mocha, Arauco, Chile; Wetmore, Bull. U. S. Nat. Mus., 133, p. 120, 1926—near Lavalle, Buenos Aires; idem, Univ. Calif. Pub. Zool., 24, p. 424, 1926—Loma Partida, Rio Negro; Bennett, Ibis, 1926, p. 309—near Port Stanley, Falkland Islands; Wilson, El Hornero, 3, p. 351, 1926—General López, Santa Fé; Smyth, l.c., 4, p. 4, 1927—Cacharí, Buenos Aires (eggs descr.); Friedmann, Bull. Mus. Comp. Zool., 68, p. 161, 1927—Bovril Island, Santa Fé; Jaffuel and Pirion, Rev. Chil. Hist. Nat., 31, p. 113, 1927—Marga-Marga, Valparaíso, Chile; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 364, 1932—Coquimbo to Arauco, Chile; Peters, Bds. World, 2, p. 213, 1934 (range); Bullock, Rev. Chil. Hist. Nat., 39, p. 245, 1935—Isla la Mocha, Chile.

Fulica leucopyga (Lichtenstein MS.) (not of Wagler, 1831) Hartlaub, Journ. Orn., 1, "1853," Extraheft, p. 84, 1854—Montevideo, Uruguay, and Tal-

¹ Additional material examined.—Chile: Huasco, Tarapacá, 1; Sacayá, Tarapacá, 1; Pelal, Temuco, 1; Maquehue, Temuco, 2; Desagüe, Llanquihue, 2; unspecified, 3; Punta Arenas, Magellan Straits, 1.—Brazil: São Lourenço, Rio Grande do Sul, 1; Asyl Pella, Rio Grande do Sul, 1.—Uruguay: Santa Lucia, 1.

² There is a possibility that *Fulica minor* Brehm (Handb. Naturg. Vög. Deutschl., p. 711, 1831—"South America") may have been intended for the Red-fronted Coot. The whole characterization reads "smaller than ours" (i.e. *Fulica atra* Linnaeus), which is altogether insufficient to fix the name.

caguano, Chile (type, from Montevideo, in Berlin Museum); Burmeister, Syst. Uebers. Th. Bras., 3, p. 390, 1856—Montevideo; Schlegel, Mus. Pays-Bas, Ralli, p. 64, 1865—Santiago, Chile; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 135, 1865—Chile; Sclater, Proc. Zool. Soc. Lond., 1867, pp. 333, 339—Chile (crit.); idem and Salvin, l.c., 1868, p. 467 (monog.); idem, Exot. Orn., p. 117, pl. 59, 1868—Uruguay, Chile, and Falkland Islands (crit.); Durnford, Ibis, 1877, p. 42—Chuput Valley, Patagonia; idem, Ibis, 1878, p. 402—valleys of the Chuput, Sengel, and Sengelen, Patagonia; Sclater and Hudson, Arg. Orn., 2, p. 157, 1889—Argentina (habits, nest); Sharpe, Cat. Bds. Brit. Mus., 23, p. 220, 1894—Falkland Islands, Chile (Valparaiso), and Argentina (Jacal, Buenos Aires, Chuput); Aplin, Ibis, 1894, p. 204—Uruguay; Schalow, Zool. Jahrb., Suppl., 4, p. 667, 1898—Villarica and La Serena, Coquimbo, Chile; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 215, 1902—Lules, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 70, 1905—Lules; Gibson, Ibis, 1920, p. 46—Cape San Antonio, Buenos Aires (habits, nest and eggs).

Fulica chloropoides (not of King) Abbott, Ibis, 1861, p. 157—Stanley Harbour, Falkland Islands.

Fulica ruifrons [sic] Philippi, Anal. Univ. Chile, 31, p. 279, 1868—central provinces of Chile.

Fulica lecopygia [sic] Reed, Anal. Univ. Chile, 49, p. 566, 1877—Cauquenes, Colchagua, Chile.

Fulica leucopygia Durnford, Ibis, 1878, p. 66—north of Buenos Aires; Withington, Ibis, 1888, p. 471—Lomas de Zamora, Buenos Aires; Grant, Ibis, 1911, p. 462—Los Ynglases, Ajó, Buenos Aires.

Fulica lecopyga [sic] Reed, Anal. Univ. Chile, 93, p. 209, 1896—Chile.

Range.—Central Chile, from Coquimbo to Arauco; Argentina from Tucumán south to the Chubut Valley; Uruguay; also south-eastern Brazil (Iguapé, São Paulo) and the Falkland Islands.¹

Field Museum Collection.—3: Chile (Camarico, Talca, 1; Malleco, 1; Penco, Concepción, 1).

Conover Collection.—3: Chile (Penco, Concepción, 1; Lillo, Santiago, 2).

**Fulica gigantea* Eyndoux and Souleyet. GIANT COOT.

Fulcia [sic] *gigantea* Eyndoux and Souleyet, Voy. Bonite, Zool., 1, p. 102, pl. 8, 1841—Peru (type in Paris Museum; cf. Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 221, 1909); Tschudi, Unters. Faun. Peru., Orn., p. 302, 1846—Lake Ascacocha, Altos de Huaihuai, Peru; Hartlaub, Journ. Orn., 1, "1853," Extraheft, p. 80, 1854—Altos de Huaihuai and between Arequipa and Cuzco, Peru (monog.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 463—same localities (monog.); Taczanowski, l.c., 1874,

¹ Birds from the Falkland Islands are stated to be somewhat smaller than the continental ones. However, so far only a few specimens have been obtained, and it is extremely questionable whether this coot breeds on the islands. The occurrence in São Paulo is probably accidental.

Four additional specimens from Chile and one from Buenos Aires examined.

p. 559—Junín, Peru; Allen, Bull. Mus. Comp. Zool., 3, p. 357, 1876—north of Juli, Lake Titicaca; Taczanowski, Orn. Pér., 3, p. 329, 1886—Peru (lakes Ascacocha and Junín); Selater, Proc. Zool. Soc. Lond., 1886, p. 402—Cueva Negra, near Sacayá, Tarapacá, Chile (eggs descr.); idem, l.c., 1891, p. 136—Sacayá, Tarapacá; Sharpe, Cat. Bds. Brit. Mus., 23, p. 219, 1894—Peru (Junín) and Chile (Sacayá, Tarapacá); Lane, Ibis, 1897, p. 301—near Sacayá, Tarapacá; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 50—Ingapirca, Peru; Ménégaux, Bull. Soc. Philom. Paris, (10), 1, p. 221, 1909—Bolivia; Blaauw, Not. Leyd. Mus., 35, p. 14, 1912—“Laguna Huachiri,” Chile; Chubb, Ibis, 1919, p. 55—Potosí, Bolivia; Chapman, Bull. U. S. Nat. Mus., 117, p. 49, 1921—La Raya, head of Urubamba, Peru; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 363, 1932—Cordilleras of Tarapacá, Chile; Peters, Bds. World, 2, p. 213, 1934 (range).

Fulica maxima Brehm,¹ Vogelfang, p. 333, 1855—new name for *F. gigantea* Eydoux and Souleyet.

Phalaris gigas Reichenbach, Av. Syst. Nat., p. xxi, Oct., 1852.

Range.—Puna zone of southern Peru (north to Junín), Bolivia, and extreme northern Chile (Cordillera of Tarapacá).²

Field Museum Collection.—2: Peru (Cailloma, Arequipa, 1); Bolivia (Esperanza, 1).

Conover Collection.—5: Bolivia (Vacas, Cochabamba, 4; Esperanza, 1).

***Fulica cornuta* Bonaparte. HORNED COOT.**

Fulica cornuta Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 925, Dec., 1853—Potosí, Bolivia (type in Paris Museum examined); Hartlaub, Journ. Orn., 1, “1853,” Extraheft, p. 82, 1854—Potosí (monog.); Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 463—Potosí (crit.); idem, Exot. Orn., p. 120, 1868—Bolivia; idem, Proc. Zool. Soc. Lond., 1879, p. 641—Potosí; Philippi, Orn., 4, p. 160, 1888—Lake Ascotan, Antofagasta, Chile; Sharpe, Cat. Bds. Brit. Mus., 23, p. 217, 1893—Potosí; Rothschild, Bull. Brit. Orn. Cl., 14, p. 38, 1904—Cerro Pelado, Aconquija Range, Tucumán; Baer, Orn., 12, p. 232, 1904—lagoon on top of Cerro Pelado, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 70, 1905—Lagunas de las Cumbres Calchaqués and “Lara,” Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 260, 1909—Cerro Pelado and Cumbre Calchaqués, Tucumán; Ménégaux, Bull. Soc. Philom. Paris, (10), 1, p. 220, 1909—Lake Poopo, Oruro, Bolivia (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 198, 1910—Cumbre Calchaqués and “Lara”; Hellmayr,

¹ The name *Fulica maxima* appears for the first time in Brehm, Handb. Naturg. Vög. Deutschl., p. 711, 1831, with the diagnosis “grösser als die unserige” (in translation, “larger than ours”) = *Fulica atra atra* and the habitat “South America,” which is altogether insufficient for its identification.

² Birds from Tarapacá agree with others from Junín and Bolivia.

Additional material examined.—Peru: Junín, 2; Lauramarca, Cuzco, 4.—Bolivia: Sajama, Oruro, 10.—Chile, Tarapacá: Cueva Negra, 2; Sacayá, 1.

Field Mus. Nat. Hist., Zool. Ser., 19, p. 362, 1932—Lake Ascotan, Chile; Peters, Bds. World, 2, p. 213, 1934 (range).

Lycornis cornuta Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, p. 600, 1856.

Range.—Puna zone of Bolivia (Lake Poopo, Oruro; Potosí), northern Chile (Lake Ascotan, Antofagasta), and northwestern Argentina (Cumbre Pelado and Cumbres Calchaqufes, Aconquija Range, Tucumán).¹

Suborder HELIORNITHES

Family HELIORNITHIDAE. Sun Grebes

Genus HELIORNIS Bonnaterre

Helicornis Bonnaterre, Tabl. Enc. Méth., Orn., 1, livr. 47, pp. lxxxiv, 64, 1791—type, by monotypy, *Helicornis fulicarius* Bonnaterre=*Colymbus fulica* Boddaert.

Podoa Illiger, Prodr. Syst. Mamm. Av., p. 267, 1811—type, by monotypy, *Plotus surinamensis* Gmelin=*Colymbus fulica* Boddaert.

**Helicornis fulica* (Boddaert). SUN GREBE.

Colymbus fulica Boddaert, Tabl. Pl. Enl., p. 54, Dec., 1783—based on "Le Grebifoulque, de Cayenne" Daubenton, Pl. Enl., pl. 893; Cayenne.

Plotus surinamensis Gmelin, Syst. Nat., 1, (2), p. 581, 1789—based chiefly on Brown, New Ill. Zool., pl. 39, Surinam; Wied, Reise Bras., 2, p. 93, 1821—Ithaye River, Bahia.

Helicornis fulicarius Bonnaterre, Tabl. Enc. Méth., Orn., 1, livr. 47, p. 65, 1791—based on "Le Grèbe-foulque" Buffon and "The Surinam Tern" Brown; Surinam and Guiana.

Podoa surinamensis Illiger, Prodr. Syst. Mamm. Av., p. 267, 1811; Wied, Beitr. Naturg. Bras., 4, (2), p. 823, 1833—southeastern Brazil (descr. of male, female, and young; habits); Schomburgk, Reisen Brit. Guiana, 2, p. 505, 1848—Demerara River; Cabanis, in Schomburgk, l.c., 3, p. 765, 1848—Demerara River; Burmeister, Syst. Uebers. Th. Bras., 3, p. 391—Brazil.

Helicornis surinamensis Lesson, Traité d'Orn., p. 596, 1831—Trinidad; C. B. Brown, Canoe and Camp Life Brit. Guiana, p. 47, 1876—Cartoonie River; Sumichrast, La Naturaleza, 5, p. 229, 1881—Rio Coatzacoalcas, Vera Cruz, Mexico.

Helicornis fulica Sclater and Salvin, Ibis, 1859, p. 234—Santana Mixtan, Pacific coast of Guatemala; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 302, 1861—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 373—Panama; Léotaud, Ois. Trinidad, p. 531, 1866—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 200—upper Ucayali, Peru; idem, l.c., 1867, pp. 754, 979—Chyavetas and Pebas, Peru; idem,

¹ *Material examined*.—Bolivia: Lake Poopo, 1; Potosí, 1 (the type).—Argentina, Tucumán: Cerro Pelado, 1; Cumbres Calchaqufes, 5.

l.c., 1868, p. 469—Guatemala to Paraguay (monog.); idem, l.c., 1870, p. 838—Honduras; Pelzeln, Orn. Bras., 3, p. 318, 1870—Goyáz (Rio Araguay), Matto Grosso (Villa Bella), Rio Negro (Rio Curicuriarí, above Barcellos), and Rio Branco (Forte do São Joaquim), Brazil; Wyatt, Ibis, 1871, p. 384—Ocaña, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 309—Peru (upper Ucayali, Chyavetas, Pebas); idem, l.c., 1879, p. 546—Antioquia, Colombia; Salvin, Ibis, 1886, p. 177—Merumé Mountains, British Guiana, and Rio Yuruani, Terr. Yuruari, Venezuela; Taczanowski, Orn. Pér., 3, p. 490, 1886—Peru (upper Ucayali, Chyavetas, Pebas) and French Guiana (Uassá); Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1889—lower Beni, Bolivia; Riker and Chapman, Auk, 8, p. 163, 1891—Santarém, Brazil; Richmond, Proc. U. S. Nat. Mus., 16, p. 530, 1893—Nicaragua (Rio San Juan, Rio Escondido) and Costa Rica (Rio Frio); Sharpe, Cat. Bds. Brit. Mus., 23, p. 233, 1894—British Honduras (Belize, Rio Makal), Guatemala (Santana Mixtan, Chiapám), Costa Rica, Panama (Lion Hill), Colombia (Medellin), Cayenne, Ecuador (Sarayacu), Peru (Pebas), and Brazil (Matto Grosso); Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—Puerto Barrios, Guatemala; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 41, 1900—Rio Peripa, western Ecuador; Goeldi, Ibis, 1903, p. 500—Rio Capim, Pará; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 331, 1903—Vera Cruz (Rio Coatzacoalcos) to Panama; Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Ceiba, Honduras; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 184, 1904—Saint Georges d'Oyapock, French Guiana; Ihering, Rev. Mus. Paul., 6, "1904," pp. 361, 451, 1905—São Paulo (Iguapé) and Rio Jurua, Brazil; idem, Cat. Faun. Braz., 1, p. 33, 1907—same localities; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 76, 1907—Los Amates, Guatemala; Penard, Vog. Guyana, 1, p. 12, 1908—Paramaribo, Surinam; Hellmayr, Nov. Zool., 15, p. 100, 1908—Rio Araguaya, Goyáz; Berlepsch, l.c., p. 300, 1908—French Guiana; Hellmayr, l.c., 17, p. 422, 1910—São Isabel, Rio Preto, Rio Madeira; Carriker, Ann. Carnegie Mus., 6, p. 412, 1910—Matina River and Bonfilla, Costa Rica; Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Rio Capim, Pará; Bertoni, Anal. Soc. Cient. Arg., 75, p. 70, 1913—Alto Paraná (Iguazú), Misiones; Dabbene, Bol. Soc. Physis, 1, pp. 243, 256, 1913—same locality; Bertoni, Faun. Parag., p. 37, 1914—same locality; Snethlage, Bol. Mus. Goeldi, 8, p. 75, 1914—Pará, Cussary, Maracá, and Monte Alegre, Lower Amazonia; Chubb, Bds. Brit. Guiana, 1, p. 80, 1916 (various localities); Chapman, Bull. Amer. Mus. N. H., 36, p. 220, 1917—Barbacoas, Nariño, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 244, 1918—Gatún Lake, Panama; Chapman, Bull. Amer. Mus. N. H., 55, p. 180, 1926—Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 152, 1928—Rio Inhangapy and Rio Gurupy, Pará; Naumburg, Bull. Amer. Mus. N. H., 60, p. 74, 1930—Matto Grosso; Peters, Bull. Mus. Comp. Zool., 71, p. 302, 1931—Changuinola River, Almirante Bay, Panama; Griscom, Bull. Amer. Mus. N. H., 64, p. 124, 1932—Guatemala; Huber, Proc. Acad. Nat. Sci. Phila., 85, p. 210, 1932—Tunkey River and Banbana River, Nicaragua; Stone, l.c., p. 303, 1932—San Pedro, Honduras; Stone and Roberts, l.c., 86, p. 375, 1934—Descalvados, Matto Grosso; Peters, Bds. World, 2, p. 214, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 305, 1935—Panama

(Almirante Bay; Chagres River; Lake Gatún); Pinto, Rev. Mus. Paul., 19, p. 77, 1935—Rio Jucurucú, Bahia; Belcher and Smooker, Ibis, 1935, p. 286—Trinidad.

Range.—Central and South America, from southern Vera Cruz (Rio Coatzacoalcos) south to northern Bolivia, Paraguay, northeastern Argentina (Misiones), and southern Brazil (Matto Grosso and São Paulo); island of Trinidad (two records).

Field Museum Collection.—14: Guatemala (Los Amates, Izabal, 1; Puerto de Itzapa, Escuintla, 1); Costa Rica (Boca Rio Matina, 1); British Guiana (Demerara River, 1; Mahaica, 1); Brazil (Tauary, Pará, 5; Boim, Pará, 2; Caxiricatuba, Pará, 1); Ecuador (Sarayacu, Napo-Pastasa, 1).

Suborder EURYPYGAE

Family EURYPYGIDAE. Sun Bittern

Genus EURYPYGA Illiger

Eurypyga Illiger, Prodr. Syst. Mamm. Av., p. 257, 1811—type, by monotypy, *Ardea helias* "Lin. Gm." [=Pallas].

Helias Vieillot,¹ Anal. Nouv. Orn. Elém., p. 56, April, 1816—type, by monotypy, "Le Caurale" Buffon=*Ardea helias* Pallas.

**Eurypyga helias major* Hartlaub. GREATER SUN BITTERN.

Eurypyga major Hartlaub,² Verz. Samml. Ges. Bremen, p. 108, 1844—Colombia (nomen nudum); idem, Journ. Orn., 1, p. 37, 1853—Colombia (descr.; type in Bremen Museum); Bonaparte, Consp. Gen. Av., 2, p. 144, "July, 1855" [=1857]—Colombia; Selater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 371—Panama Railroad; Schlegel, Mus. Pays-Bas, Ralli, p. 74, 1865—Colombia; Salvin, Ibis, 1866, p. 205—Guatemala; idem, Proc. Zool. Soc. Lond., 1867, p. 161—Santa Fé and Cordillera de Tolé, Veraguas; Frantzius, Journ. Orn., 17, p. 377, 1869—Machuca, Aguacate Mountains, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 218—Cordillera del Chucú, Veraguas, and Volcan de Chiriquí, Panama; Selater and Salvin, l.c., 1879, p. 546—Neché, Antioquia, Colombia; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 131, 1887—Pózo Azul de Pirris, Monte del Aguacate, and Monte Redondo, Costa Rica; Sharpe, Cat. Bds. Brit. Mus., 23, p. 242, 1894—Guatemala (Coban, Vera Paz), Costa Rica (Valsa), Panama (Cordillera de Tolé, Cordillera del Chucú, Santa Fé, Volcan de Chiriquí), Colombia (Neché, "Bogotá"), and Ecuador (Yanayacu, Rio Blanco); Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—Santo Tomás, Guatemala; Goodfellow, Ibis, 1902, p. 230—Santo Domingo, Ecuador; Salvin

¹ *Helias* Rafinesque (Anal. Nat., p. 71, 1815) is a nomen nudum without nomenclatural standing.

² While the species cannot be recognized from the phrase, "diese durch Grösse und Färbung gekennzeichnete Art," as given in 1844, Hartlaub subsequently (Journ. Orn., 1, p. 37, 1853) published a full description of the bird.

and Godman, Biol. Centr.-Amer., Aves, 3, p. 334, 1903—Guatemala to Ecuador; Carriker, Ann. Carnegie Mus., 6, p. 425, 1910—Costa Rica (Carrillo, Tenorio, Cariblanco de Sarapiquí, El Hogar, Guápiles); Chapman, Bull. Amer. Mus. N. H., 36, p. 226, 1917—Rio Salaquí, Chocó, Colombia; Rendahl, Ark. Zool., 12, No. 8, p. 11, 1919—Laguna de Santa Rosa, Ometépe Island, Nicaragua; Lönnberg and Rendahl, l.c., 14, No. 25, p. 25, 1922—Santo Domingo de los Coronados, Ecuador.

Eurypyga phalaenoides (not *Helias phalaenoides* Vieillot) Goudot, Rev. Zool., 6, p. 1, 1843 (nest descr.); idem, Mag. Zool., (2), 5, cl. 2, pl. 38 (egg), text p. 4, 1843—Central Cordillera of New Granada (habits, eggs descr.).

Ardea helias (not of Pallas) Des Murs, Mag. Zool., (2), 6, cl. 2, pl. 49, fig. 1 (egg), 1844—New Granada (descr. of eggs).

Eurypyga helias Sclater and Salvin, Ibis, 1859, p. 227—Guatemala; Sclater, Proc. Zool. Soc. Lond., 28, p. 73, 1860—Pallatanga, Ecuador.

Euripyga major Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 478, 1862—Panama Railroad (crit.).

Eurypyga major major Chapman, Bull. Amer. Mus. N. H., 55, p. 203, 1926—Rio Suno and below San José, Ecuador; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 448, 1928—Almirante, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 303, 1931—Cricamola and Guábo, Almirante Bay, Panama; Griscom, Bull. Amer. Mus. N. H., 64, p. 137, 1932—Guatemala; idem, Bull. Mus. Comp. Zool., 72, p. 321, 1932—Permé, eastern Darien, Panama.

Eurypyga helias major Peters, Bds. World, 2, p. 215, 1934 (range); Griscom, Bull. Mus. Comp. Zool., 78, p. 305, 1935—Panama; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 361, 1939—Santa Rosa, Comitán, Chiapas, Mexico.

Range.—Tropical zone of southeastern Mexico (Chiapas) and south through Central America to Colombia and eastern and western Ecuador.¹

Field Museum Collection.—1: Honduras (San Pedro Sula, Cortes, 1).

***Eurypyga helias meridionalis* Berlepsch and Stolzmann.² SOUTH-ERN GREATER SUN BITTERN.**

Eurypyga major meridionalis Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 50—La Merced, Chanchamayo, Peru (type in Branicki Collection, now in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 102, 1927); idem, Ornith., 13, p. 125,

¹ The few Central American specimens seen by the authors do not appreciably differ from two "Bogotá" skins and two others from Santo Domingo de los Colorados, western Ecuador.

² *Eurypyga helias meridionalis* Berlepsch and Stolzmann: Very similar to, and about the same size as, *E. h. major*, but hind neck more distinctly marked with rufescent, and black bars on the upper back much narrower. Wing (female), 215–220; tail, 144–148; bill, 55–57.

Two specimens, both females, from Huaynapata, Peru, examined.

- 1906—Huaynapata, Marcapata, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 51, 1921—Rio Cosireni, Urubamba, and Inca Mine, Peru (crit.).
Eurypyga meridionalis Chubb, Ibis, 1919, p. 270—"Orayci, Rio Linimbare" [= Oroya, Rio Inambari], Peru.
Eurypyga helias meridionalis Peters, Bds. World, 2, p. 215, 1934 (range).

Range.—Tropical zone of southern Peru, in depts. of Junín (La Merced, Chanchamayo) and Cuzco (Rio Cosireni, Urubamba; Oroya, Rio Inambari; Santo Domingo [Inca Mine]; Huaynapata, Marcapata).

****Eurypyga helias helias* (Pallas). COMMON SUN BITTERN.**

- Ardea Helias* Pallas, Neue Nord. Beytr., 2, p. 48, pl. 3, 1781—Brazil (location of type unrecorded); Deville, Rev. Mag. Zool., (2), 4, p. 222, 1852—Goyáz (Rio Araguay) and Peru (Rio Ucayali, Pampa del Sacramento) (habits); Bates, Natur. Amaz., p. 82, 1863—Rio Iritiri, near Magoary, Pará.
Scolopax solaris Boddaert, Tabl. Pl. Enl., p. 48, 1783—based on "Le Caural de Cayenne" Daubenton, Pl. Enl., pl. 782; Cayenne.
Helias phalenoides Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 5, p. 423, 1816—based on Daubenton, Pl. Enl., pl. "780" [=782]; Cayenne.
Eurypyga helias Schomburgk, Reisen Brit. Guiana, 1, pp. 137, 185, 440, 1847—mouth of the Barima and Canuku [= Cuano] Mountains (habits); Cabanis, l.c., 3, p. 752, 1849—coast district and Canuku Mountains; Des Murs, in Castelnau, Expéd. Amér. Sud, Zool., 1, Ois., p. 90, 1856 (aff., anat., habits); Sclater, Proc. Zool. Soc. Lond., 25, p. 268, 1857—Rio Javarrí; Taylor, Ibis, 1864, p. 95—Orinoco River, Venezuela; Schlegel, Mus. Pays-Bas, Ralli, p. 73, 1865—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 199—upper Ucayali, Peru; *idem*, l.c., 1867, p. 979—Pebas, Peru; Pelzeln, Orn. Bras., 3, p. 300, 1870—Goyáz (Goyabeira, near Jaraquá), Matto Grosso (Engenho do Pari, Villa Maria, Caicara, Engenho do Gama, Villa Bella), Rio Negro (Santa Ana, Manãos), and Pará (Cajútuba), Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 308—Rio Javarrí, Cashiboya, and Pebas, Peru; Allen, Bull. Essex Inst., 8, p. 82, 1876—Rio Tapajóz, Brazil; Berlepsch, Ibis, 1884, p. 440—Angostura, Rio Orinoco, Venezuela; Blasius, Journ. Orn., 33, p. 417, 1885—Rio Mamoré, Bolivia; Taczanowski, Orn. Pér., 3, p. 388, 1886—Peru (Rio Javarrí, Cashiboya, Iquitos); Salvin, Ibis, 1886, p. 177—Bartica Grove and Camacusa, British Guiana; W. L. Sclater, Ibis, 1887, p. 317—Macasseema, Rio Pomeroun, British Guiana; Berlepsch, Journ. Orn., 37, p. 320, 1889—Yurimaguas, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 107, 1889—Reyes, El Beni, Bolivia; Sharpe, Cat. Bds. Brit. Mus., 23, p. 240, 1894—British Guiana (Demerara, Bartica Grove, Camacusa), Cayenne, Matto Grosso (Engenho do Gama), and Peru (Pebas); Goeldi, Ibis, 1897, pp. 154, 160—Counany, Pará, Brazil; Berlepsch and Hartert, Nov. Zool., 9, p. 128, 1902—Rio Orinoco (Altagracia; Quiribana de Caicara; La Unión, Rio Portuguesa), Mato River, and La Prición, Caura, Venezuela; Goeldi, Ibis, 1903, p. 500—Rio Capim, Pará; André, Natur. Guianas, p. 217, 1904—above Achuba, Caura River; Ihering, Rev. Mus. Paul., 6, "1904," p. 451, 1905—Rio Juruá, Brazil; *idem*, Cat. Faun. Braz., 1, p. 58, 1907—Rio

Juruá; Hagmann, Zool. Jahrb. (Syst.), 26, p. 43, 1907—Mexiana Island, Brazil; Hellmayr, Nov. Zool., 14, p. 412, 1907—Humaytá, Rio Madeira; idem, l.c., 15, p. 100, 1908—Rio Araguaya, Goyáz; Berlepsch, l.c., p. 300, 1908—Cayenne; Penard, Vog. Guyana, 1, p. 192, 1908—Surinam (habits); Beebe, Zoologica (N.Y.), 1, p. 75, fig. 24, 1909—La Brea, Orinoco Delta (habits); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 93, 1910—Barra do Cocal, Rio Parnahyba, Piauh; Hellmayr, Nov. Zool., 17, p. 422, 1910—Jamarysinho and Maroins, Rio Machados, Brazil; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 83, 97, 122, 1912—Rio Acará, Pará localities, and Mexiana; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 193, 1913—Guinipa River and Vagre River, Orinoco Delta, Venezuela; Sneath, Bol. Mus. Goeldi, 8, p. 96, 1914—Rio Guamá (Ourém), Marajó (Cambú), Mexiana, and Monte Alegre, Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 368, 1916—Orinoco region; Chubb, Bds. Brit. Guiana, 1, p. 142, 1916 (numerous localities); Beebe, Trop. Wild Life, 1, p. 128, 1917—Bartica, British Guiana; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 42, 1918—Paramaribo, Surinam; Chubb, Ibis, 1919, p. 269—San Ernesto and Charuplaya, Bolivia; Delacour, Ibis, 1923, p. 140—Rio Apure, Venezuela; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 221, 1924—Riacho da Raiz and Barra do Cocal, Piauh.

Eurypyga helius helius Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 480, 1929—Rio Parnahyba, Piauh; Zimmer, l.c., 17, p. 253, 1930—Orellana, lower Ucayali, Peru; Naumburg, Bull. Amer. Mus. N. H., 60, p. 83, 1930—Matto Grosso; Peters, Bds. World, 2, p. 216, 1934 (range); Pinto, Rev. Mus. Paul., 20, p. 45, 1936—Rio das Almas, Goyáz.

Range.—The Guianas and Venezuela, from the Orinoco basin southwards through Brazil to Piauh (Rio Parnahyba), southern Goyáz (sources of the Rio Araguaya and Rio Tocantins), and western Matto Grosso, west to eastern Bolivia, northeastern Peru (banks of the Rio Marañón and Ucayali), and extreme eastern Ecuador (Rio Curaray).¹

Field Museum Collection.—9: British Guiana (unspecified, 1); Brazil (Serra da Lua, Amazonas, 3; Lagõa Grande, Rio Paraná, Goyáz, 1; Independencia, Pará, 1; Monte Alegre, Pará, 1; Rio Mae-curú, Pará, 1); Peru (Orellana, Loreto, 1).

Suborder CARIAMAE

Family CARIAMIDAE. Cariamias

Genus CARIAMA Brisson

Cariama Brisson, Orn., 1, p. 48; 5, p. 516, 1760—type, by monotypy, “*Cariama*” = *Palamedea cristata* Linnaeus.

¹ Birds from western Matto Grosso (Caiçara) approach the western races in size, but not in coloration. No Bolivian material is available for comparison.

Twenty-nine additional specimens examined.

Microdactylus Geoffroy, Ann. Mus. Hist. Nat. Paris, 13, p. 370, 1809—type, by monotypy, *Microdactylus marcgravii* Geoffroy = *Palamedea cristata* Linnaeus.

Dicholophus Illiger, Prodr. Syst. Mamm. Av., p. 253, 1811—type, by orig. desig., *Palamedea cristata* Linnaeus.

Lophorhynchus Vieillot, Anal. Nouv. Orn. Elém., p. 59, 1816—type, by monotypy, "Cariama" Buffon = *Palamedea cristata* Linnaeus.

Sariama Bonaparte, Consp. Gen. Av., 2, p. 103, 1857—type, by monotypy, *Palamedea cristata* Linnaeus.

***Cariama cristata (Linnaeus).¹ SERIEMA.**

Palamedea cristata Linnaeus, Syst. Nat., 12th ed., 1, p. 232, 1766—based on "Cariama" Marcgrave, Hist. Nat. Bras., p. 203; northeastern Brazil.

Microdactylus marcgravii Geoffroy, Ann. Mus. Hist. Nat. Paris, 13, pp. 362, 370, pl. 26, 1809—Brazil and northern Paraguay.

Dicholophus cristatus Illiger, Prodr. Syst. Mam. Av., p. 253, 1811; Wied, Reise Bras., 2, p. 188, 1831—Fazenda Valo, southwestern Bahia (nest descr.); idem, Abbild. Naturg. Bras., livr. 2, pl. 4, 1823—Brazil; Temminck, Nouv. Rec. Pl. Col., livr. 40, pl. 237, Nov., 1823—Brazil; Wied, Beitr. Naturg. Bras., 3, (2), p. 570, 1833—Campo of Bahia (descr., anat., habits); Burmeister and Nitzsch, Abhandl. Naturf. Ges. Halle, 1, pp. 18–58, pls. 1, 2, 1853 (anatomy); Burmeister, Syst. Uebers. Th. Bras., 3, p. 401, 1856—Brazil (descr., habits); Pelzeln, Orn. Bras., 3, p. 299, 1870—São Paulo (Nas Lages), Goyáz (Sitio do Bahú, Porto do Rio Araguay, Portão do Pilato), and Matto Grosso (Cuyabá, Pouzo dos Irmãos, Villa Bella de Matto Grosso); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 39, 1910—Bahia (Joazeiro; Santa Rita, Rio Preto) and Piauhý (Buriti and Pé do Morro, near Parnaguá).

Cariama saurophaga Vieillot and Oudart, Galerie Ois., 2, p. 148, pl. 259, 1825—new name for *Palamedea cristata* Linnaeus.

Cariama cristata Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 30—Minas Geraes (Fazenda Garandahy, north of Barbacena, to Lagõa Santa) and São Paulo (Araraquara) (habits); Sharpe, Cat. Bds. Brit. Mus., 1, p. 42, 1874 (monog.); Newton, Proc. Zool. Soc. Lond., 1881, p. 1 (egg descr.); Forbes, Ibis, 1881, p. 358—sertão of Pernambuco; Sclater and Hudson, Arg. Orn., 2, p. 161, 1889—Argentina; Kerr, Ibis, 1892, p. 149—lower Pilcomayo; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 34, 1897—Tala, Salta; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 148, 1899—Pelotas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 421, 1899—São Paulo; idem, l.c., 4, p. 289, 1900 (nest); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 211, 1902—Tucumán (Timbo, Alto de las Salinas,

¹ Miranda-Ribeiro (Rev. Mus. Paul., 23, pp. 35–90, 1938) restricts *C. c. cristata* to northeastern Brazil (Ceará) and proposes, more or less tentatively, four names: *C. c. leucofimbria* (pp. 70, 88; Rio Manso, southern Matto Grosso), *C. c. biceincta* (p. 70; one specimen each from Chaicó, Goyáz, and Porto do Campo, Rio Lepotuba, Matto Grosso, respectively), *C. c. schistofimbria* (pp. 70, 88; a single specimen from Campos do Urussú, northern Matto Grosso), and *C. c. azarae* (p. 75, note 1; ex *Cariama cristata* Devincenzi, Anal. Mus. Urug., (2), 2, p. 343, 1928, and El Hornero, 4, pl. 12, 1931—Uruguay, Argentina, and probably Rio Grande do Sul).

Tapia, Cerro de San Javier); idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 67, 1905—same localities; Lüderwaldt, Zool. Jahrb. (Syst.), 24, p. 282, 1909—Alto Itatiaya; Hartert and Venturi, Nov. Zool., 16, p. 249, 1909—northern Argentina (breeding notes); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 223, 1910—Tucumán, Salta, and Chaco; Bertoni, Faun. Parag., p. 39, 1914—Puerto Bertoni, Paraguay; Ménégau, Rev. Franç. d'Orn., 9, p. 26, 1917—Poconé, Matto Grosso; Tremoleras, El Hornero, 2, p. 14, 1920—Cerro Largo, Uruguay; Serié and Smyth, l.c., 3, p. 41, 1923—Santa Elena, Entre Ríos; Wetmore, Bull. U. S. Nat. Mus., 133, p. 128, 1926—west of Puerto Pinasco, Paraguay; Pereyra, El Hornero, 4, p. 28, 1927—Jelin, F.C.O., Pampa Central; Holt, Bull. Amer. Mus. N. H., 57, p. 282, 1928—Alto Itatiaya (ex Lüderwaldt); Naumburg, l.c., 60, p. 84, 1930—Matto Grosso and Paraguay (Fort Wheeler); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 480, 1929—Piauhy; Peters, Bds. World, 2, p. 216, 1934 (range); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 375, 1934—Descalvados, Matto Grosso; Pinto, Rev. Mus. Paul., 20, p. 21, 1936—Goyáz.

Certhia cristata Allen, Bull. Amer. Mus. N. H., 5, p. 148, 1893—Chapada, Matto Grosso.

Microdactylus cristatus Ihering, Cat. Faun. Braz., 1, p. 60, 1907—Franca, São Paulo (range).

Range.—Tableland of Brazil from southern Piauhy south to Rio Grande do Sul, west to Matto Grosso; Uruguay; Paraguay; northern Argentina.

Field Museum Collection.—3: Brazil (São Marcello, Bahia, 1; Fazenda Capão Bonito, Vaccaria, Matto Grosso, 2).

Genus CHUNGA Hartlaub

Chunga (Burmeister MS.) Hartlaub, Proc. Zool. Soc. Lond., 1860, p. 335 (in text), 1860—type, by monotypy, *Dicholophus burmeisteri* Hartlaub; Reichenbach, Vollst. Naturg. Tauben, p. 159, 1862—same type.

Chunnnia Burmeister, Reise La Plata St., 2, p. 508, 1861—new name for *Chunga* "Reichenbach."

Chunga burmeisteri (Hartlaub). BURMEISTER'S SERIEMA.

Dicholophus burmeisteri Hartlaub, Proc. Zool. Soc. Lond., 1860, p. 335, 1860—wooded districts of the provinces of Tucumán and Catamarca (type probably in the Halle Museum); Burmeister, Journ. Orn., 8, No. 46, "July," p. 262, 1860—same localities; idem, Reise La Plata St., 2, p.

¹ The number of the "Journal für Ornithologie" containing Burmeister's account was evidently issued much later than "July, 1860," for Hartlaub's article from the Proc. Zool. Soc. Lond. is listed (on p. 320) among the papers received by the editor. Though Burmeister credits the original description of *D. burmeisteri* to "Hartl. Rep. Brit. Assoc. Oxford, June 24, 1860," we have been unable to find any reference to that bird in the "Reports of the Thirtieth Meeting of the British Association for the Advancement of Science" at Oxford, June and July, 1860. Moreover, this volume was not published until 1861.

506, 1861—northwestern Argentina (between La Rioja, Catamarca, and Tucumán); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 406, 1890—Córdoba.

Chunga burmeisteri Reichenbach, Vollst. Naturg. Tauben, p. 160, 1862 (ex Hartlaub); Sclater, Proc. Zool. Soc. Lond., 1870, p. 666, pl. 36; idem and Hudson, Arg. Orn., 2, p. 162, 1889—Argentina; Frenzel, Journ. Orn., 39, p. 125, 1891—Córdoba; Lönnberg, Ibis, 1903, p. 445—Quinta, Jujuy; Hartert and Venturi, Nov. Zool., 16, p. 249, 1909—Tucumán (Tapia), La Rioja, and Salta (eggs descr.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 223, 1910 (range); Chubb, Ibis, 1919, p. 270—Cruz del Ejo, Córdoba; Giacomelli, El Hornero, 3, p. 80, 1923—La Rioja; Pereyra, l.c., p. 174, 1923—Telén, F.C.O., Argentina; Wetmore, Bull. U. S. Nat. Mus., 133, p. 128, 1926—near Tapia, Tucumán; Lowe, Ibis, 1926, p. 170 (quadrate); Friedmann, Bull. Mus. Comp. Zool., 68, p. 163, 1927—Monteagudo, Tucumán; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 72, 1930—Tapikiolé, Formosa; Castellanos, El Hornero, 4, p. 279, 1931—Sierra Chica, Córdoba; Peters, Bds. World, 2, p. 216, 1934 (range); Brod-korb, Proc. Biol. Soc. Wash., 50, p. 33, 1937—265 km. west of Puerto Casado, Paraguayan Chaco.

Cariama burmeisteri Sharpe, Cat. Bds. Brit. Mus., 1, p. 43, 1874 (monog.); Salvin, Ibis, 1880, p. 364—Tucumán.

Chunnia burmeisteri Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 211, 1902—Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 67, 1905—Tucumán.

Range.—Northern Argentina, from Jujuy south to La Rioja and Córdoba, east to Formosa (Tapikiolé), and the Paraguayan Chaco.

Order COLUMBIFORMES

Family COLUMBIDAE. Pigeons and Doves

Genus COLUMBA Linnaeus

Columba Linnaeus, Syst. Nat., 10th ed., 1, p. 162, 1758—type, by subs. desig. (Vigors, Trans. Linn. Soc. Lond., 14, p. 481, 1825), *Columba oenas* Linnaeus.

Patagioenas Reichenbach, Av. Syst. Nat., p. xxv, 1852—type, by monotypy, *Columba leucocephala* Linnaeus.

Lepidoenas Reichenbach, Av. Syst. Nat., p. xxv, 1852—type, by monotypy, *Columba speciosa* Gmelin.

Lithoenas Reichenbach, Av. Syst. Nat., p. xxv, 1852—type, by monotypy, *Columba livia* Linnaeus.

Chloroenas Reichenbach, Av. Syst. Nat., p. xxv, 1852—type, by monotypy, *Columba monilis* Vigors=*Columba fasciata* Say.

Picazurus Des Murs, in Chenu, Enc. Hist. Nat., Ois., 6, p. 39, 1854—type, by tautonymy, *Columba picazuro* Temminck.

Crossophthalmus Bonaparte, Compt. Rend. Acad. Sci. Paris, 39, No. 24, p. 1110, for Dec. 11, 1854—type, by orig. desig., *Columba gymnophthalmus* Temminck.

Oenoenas Salvadori, Cat. Bds. Brit. Mus., 21, p. 248 (in text), 1893—type, by subs. desig. (Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 323, 1916)
Columba nigrirostris Slater.

Notioenas Ridgway, Proc. Biol. Soc. Wash., 28, p. 106, 1915—type, by orig. desig., *Columba maculosa* Temminck.

[***Columba livia livia* Gmelin. ROCK DOVE.**

[*Columba domestica*] β . *livia* Gmelin, Syst. Nat., 1, (2), p. 769, 1789—based on “Le Biset” Brisson (Orn., 1, p. 82), Buffon, Daubenton (Pl. Enl., pl. 510), etc.; no locality=southern Europe.

Columba livia Lönnberg, in Skottsberg, Nat. Hist. Juan Fernandez and Easter Island, 3, Zool., p. 16, 1921—Mas A Tierra, Chile (crit.).

Columba livia caveae Marelli, El Hornero, 5, p. 195, 1933—Sierra de la Ventana, Arroyo Sauce Chico, and Saldungaray, southern Buenos Aires (nomen nudum).

Range.—Southern Europe, British Isles, northwestern Africa, and Asia Minor. Widely domesticated and established in feral or semi-feral state about towns in the United States, on Mas A Tierra Island, Chile, and in Province of Buenos Aires, Argentina.]

****Columba leucocephala* Linnaeus. WHITE-CROWNED PIGEON.**

Columba leucocephala Linnaeus, Syst. Nat., 10th ed., 1, p. 164, 1758—based mainly on “The White-crown'd Pigeon” Catesby, Nat. Hist. Carolina, 1, p. 25, pl. 25, Bahama Islands; Salvadori, Cat. Bds. Brit. Mus., 21, p. 278, 1893 (monog.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 232, 1902—Florida keys, Cozumel, British Honduras (islands of Turneff, Glover's Reef, Half Moon Cay, Middle Cay), Honduras (Ruatán), Greater Antilles, Bahamas, Virgin Islands, St. Bartholomew, and Swan Island; Riley, Smiths. Misc. Coll., 47, p. 281, 1904—Barbuda and Antigua; idem, in Shattuck, The Bahama Islands, p. 362, 1905—Abaco, Bimini, Berry Island, New Providence, Andros, Grassy Cays, Green Cay, Cay Lobos, Eleuthera, Cat Island, Buenavista Cay (Ragged Island), Long Rock (Exuma), Watlings Island, Long Island, Mariguana, North Caicos, Grand Caicos, and East Caicos; Todd, Ann. Carnegie Mus., 10, p. 224, 1916—Nueva Gerona, Los Indios, and Bogarona, Isle of Pines; Bangs, Bull. Mus. Comp. Zool., 60, p. 306, 1916—Grand Cayman and Cayman Brac; Barbour, Mem. Nutt. Orn. Cl., 6, p. 78, 1923—Cuba; Griscom, Amer. Mus. Nov., 236, p. 8, 1926—Cozumel; Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 387, 1927—Mona, Porto Rico, Vieques, Culebra, St. Croix, and Virgin Gorda (habits); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Almirante, Panama; Peters, Bull. Mus. Comp. Zool., 69, p. 130, 1929—Corn Islands, off Nicaragua; Beatty, Journ. Dept. Agric. Porto Rico, 14, p. 143, 1930—Green Quay, St. Croix (breeding); Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 182, 1931—Hispaniola (habits); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 5, 1931—Grand Cayman and Swan Islands; Bent, Bull. U. S. Nat. Mus., 162, p. 369, 1932 (life hist.); Danforth, Auk, 51, p. 361, 1934—

Antigua and Great Bird Island; Griscom, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Swan Key, Bocas del Toro, Panama; Bond, Proc. Acad. Nat. Sci. Phila., 88, p. 357, 1936—Ruatan, Bonacca, and Utila Islands, coast of British Honduras; Peters, Bds. World, 3, p. 62, 1937 (range).

Patagioenas leucocephala Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 309, 1916 (monog., full bibliog.).

Range.—Southern Florida keys; the Bahamas; Greater Antilles; some of the Virgin Islands and Lesser Antilles (St. Croix, Virgin Gorda, St. Bartholomew, Barbuda, Antigua, Montserrat, Dominica, and Guadeloupe); Swan Island and Old Providence Island, Caribbean Sea; Cozumel Island, and islands off the coast of British Honduras (Half Moon Cay, Glover's Cay, Middle Cay, Turneff Island), Honduras (Ruatan, Bonacca, and Utila), Nicaragua (Corn Islands), and Panama (Almirante; Swan Key, Bocas del Toro); casual in southern Florida (Monroe and Date counties) and on the mainland of Yucatan (La Vega).

Field Museum Collection.—65: Florida (Key West, Monroe County, 7); Bahamas (Bimini Islands, 1; Berry Islands, 1; Andros Island, 1; New Providence, 2; Mariguana Island, 4; Caicos, 1); Jamaica (Priestman's River, 3); Grand Cayman, 1; Cayman Brac, 2; Hispaniola, Dominican Republic (La Vega, Almercen, 2; Puerto Plata, 25; Samaná, 4); Puerto Rico (Mona Island, 2); Virgin Islands (Virgin Gorda, 1; St. Croix, 1); Lesser Antilles (Antigua, 4); Old Providence, 1; Mexico (Cozumel Island, 1); Honduras (Ruatan Island, 1).

Conover Collection.—10: Cuba (San Diego de los Baños, Pinar del Rio, 3; La Sierra, Barrio Los Palacios, Pinar del Rio, 2; Artemisa, Pinar del Rio, 1); Isle of Pines (La Vega, 2); Lesser Antilles (Antigua, 1); Panama (Bocas del Toro, 1).

****Columba squamosa* Bonnaterre. SCALY-NAPE PIGEON.**

Columba squamosa Bonnaterre, Tabl. Enc. Méth., Orn., 1, livr. 51, p. 234, 1792—based on "Le Pigeon Ramier de la Guadeloupe" Holandre, Abregé d'Hist. Nat., 2, p. 214, 1790, Guadeloupe; Salvadori, Cat. Bds. Brit. Mus., 21, p. 280, 1893 (monog.); Riley, Smiths. Misc. Coll., 47, p. 280, 1904—Antigua; Nicoll, Ibis, 1904, p. 566—Grenada; Clark, Proc. Bost. Soc. N. H., 32, p. 259, 1905—Barbados, St. Vincent, Grenada, and Grenadines; Bangs and Zappey, Amer. Natur., 39, p. 197, 1905—Nueva Gerona, Isle of Pines (ex Palmer and Riley); Ramsden, Auk, 30, p. 271, 1913—Sierra del Maguey, near Guantánamo, Cuba; Todd, Ann. Carnegie Mus., 10, p. 225, 1916—Isle of Pines; Noble, Bull. Mus. Comp. Zool., 60, p. 374, 1916—Guadeloupe (Sainte Claude, Sainte Rose, Goyave); Barbour, Mem. Nutt. Orn. Cl., 6, p. 78, 1923—Cuba (distr.); Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 389, 1927—Mona, Desecheo, Porto Rico,

Vieques, Culebra, Culebrita, St. Croix, St. Thomas, and St. John (habits); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 528, 1928—St. Vincent, Dominica, and Santa Lucia; Danforth, Journ. Dept. Agric. Puerto Rico, 14, p. 120, 1930—St. Croix, St. John, and Tortola; Beatty, l.c., p. 143, 1930—St. Croix; Danforth, Auk, 47, p. 46, 1930—St. Eustatius; Chapman, Auk, 48, p. 116, 1931—Key West, Florida (May 6, 1929); Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 185, 1931—Hispaniola (habits); Bent, Bull. U. S. Nat. Mus., 162, p. 736, 1932 (life hist.); Danforth, Auk, 51, p. 361, 1934—Antigua; idem, Monog. Univ. Puerto Rico, Ser. B, No. 3, p. 39, 1935—Santa Lucia; idem, Trop. Agric., 13, p. 215, 1936—St. Kitts; Peters, Bds. World, 3, p. 63, 1937 (range).

Columba portoricensis Temminck, in Temminck and Knip, Les Pigeons, 1, Colombes, p. 41, pl. 15, 1809—Porto Rico;¹ Hartert, Ibis, 1893, p. 332—Bonaire (crit., habits); idem, Nov. Zool., 9, p. 304, 1902—Bonaire; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 210, 1909—Bonaire.

Columba monticola Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 355, 1818—Santo Domingo (descr.).

Columba imbricata Wagler, Syst. Av., 1, fol. 16, sp. 48, 1827—Porto Rico (type in Paris Museum).

Columba corensis (not of Jacquin) Temminck, Hist. Nat. Pig. Gall., 1, p. 211, 1813—Porto Rico (descr.); Atkins, Auk, 16, p. 272, 1899—Key West, Florida (Oct. 24, 1898); Wells, Auk, 19, p. 343, 1902—Carriacou and islets (nest and eggs descr.).

Patagioenas squamosa Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 312, 1916 (monog., full bibliog.).

Range.—Greater Antilles (Cuba, Isle of Pines, Hispaniola, Mona, Desecheo, Puerto Rico); Virgin Islands and Lesser Antilles (St. John, St. Croix, St. Eustatius, St. Kitts, Barbuda, Antigua, Montserrat, Guadeloupe, Dominica, Martinique, Santa Lucia, St. Vincent, Barbados, Grenadines, Grenada); Dutch West Indies (island of Bonaire);² accidental at Key West, Florida (Oct. 24, 1898; May 6, 1929).

Field Museum Collection.—28: Cuba (Oriente, 1); Hispaniola (unspecified, 1; Aguacate, La Vega, 3; Puerto Plata, 1; Santo Domingo, Catarrey, 6; Magua, Siebo, 3); Virgin Islands (St. John, 2; St. Croix, 1); Lesser Antilles (St. Eustatius, 1; Martinique, 1; Santa Lucia, 7); Dutch West Indies (Bonaire, 1).

¹ It is not clear from the letterpress, which one of the various specimens seen by Temminck formed the basis of his description, though the author states that the plate was made from the one in the Dufresne Collection at Paris. Puerto Rico being the only locality mentioned, we believe that Schlegel (Mus. Pays-Bas, 4, No. 35, p. 68, 1873) is mistaken in listing as type a bird from Haiti in the Leiden Museum. All the specimens examined by Temminck appear to have been secured by Maugé in Puerto Rico.

² Possibly also on Goat Island, Los Testigos, where a pigeon presumably of this species was observed by Lowe (*C. corensis*, Ibis, 1909, p. 313).

Conover Collection.—8: Cuba (Aspiro, Pinar del Rio, 3; Artemisa, Pinar del Rio, 1); Virgin Islands (St. Croix, 4).

****Columba speciosa* Gmelin. SCALED PIGEON.**

Columba speciosa Gmelin, Syst. Nat., 1, (2), p. 783, 1789—based on "Pigeon ramier, de Cayenne" Daubenton, Pl. Enl., pl. 213, Cayenne; Taczanowski, Orn. Pér., 3, p. 231, 1886—Peru (Chyavetas, Chamicuros, Amable Maria); Salvadori, Cat. Bds. Brit. Mus., 21, p. 281, 1893—Mexico (Córdoba) to Brazil (Pará, Bahia, Engenho do Gama, Chapada); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 233, 1902—Mexico (Vera Cruz) to Panama; Ihering, Cat. Faun. Braz., 1, p. 19, 1907—Brazil (Iguapé and Victoria de Botucatu, São Paulo; São Francisco, Santa Catharina); Berlepsch, Nov. Zool., 15, p. 294, 1908—Cayenne; Carriker, Ann. Carnegie Mus., 6, p. 392, 1910—El General and Terraba, Costa Rica; Reiser, Denks. Math. Naturw. Kl. Akad. Wiss. Wien, 76, p. 100, 1910—Miritiba, Maranhão; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1205—Noanamá, Colombia; Snethlage, Bol. Mus. Goeldi, 8, p. 61, 1914—Monte Alegre, Cussary, Rio Tapajóz (Goyana), Rio Jamundá (Faro), and Maranhão (Guimarães), Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 350, 1916—Maipures, Orinoco, and Suapuré, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 1, p. 37, 1916—Ituribisci River, Bartica, Kamakabra Creek, Bonasika, Mazaruni River, Great Falls of Demerara, Camacusa, and Roraima; Chapman, Bull. Amer. Mus. N. H., 36, p. 202, 1917—Bagado, Noanamá, Nóvita, west of Honda, Buenavista, and Villavicencio, Colombia; Bertoni, El Hornero, 1, p. 255, 1919—Puerto Bertoni, Paraguay; Lima, Rev. Mus. Paul., 12, (2), p. 96, 1920—Ilhéos to Belmonte, Bahia, Brazil; Chapman, Bull. Amer. Mus. N. H., 55, p. 162, 1926—Chone, Zamora, and Rio Suno, Ecuador; Naumburg, l.c., 60, p. 66, 1930—Rio Roosevelt, Matto Grosso; Griscom, l.c., 64, p. 109, 1932—Guatemala (Petén); Peters, Bull. Mus. Comp. Zool., 71, p. 298, 1931—Almirante, Western River, and Cricamola, Panama; Darlington, l.c., p. 379, 1931—southeast of Rio Frio, Magdalena, Colombia; Griscom, l.c., 78, p. 310, 1935—Panama; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 12, 1935—Chuntuquf, Petén, Guatemala; Belcher and Smooker, Ibis, 1936, p. 1—Trinidad (nest and eggs descr.); Pinto, Rev. Mus. Paul., 20, p. 36, 1936—Rio Jaraguá, Goyáz; Brodkorb, Occ. Pap., Mus. Zool. Univ. Mich., 349, p. 6, 1937—Marajó, Brazil; Peters, Bds. World, 3, p. 71, 1937 (range).

Lepidoenas speciosa Bonaparte, Consp. Gen. Av., 2, p. 54, 1857 (descr.); Pelzeln, Orn. Bras., 3, p. 274, 1870—Matto Grosso (Engenho do Gama), Rio Madeira (Ribeirão), Barra do Rio Negro, and Pará, Brazil; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 316, 1916 (monog., full bibliog.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 196, 1922—Bonda, Minca, Cincinnati, Agua Dulce, and Las Taguas, Santa Marta, Colombia.

Chloroenas spilodera (Gray MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 39, No. 24, p. 1109, for Dec. 11, 1854—no locality given (type in British Museum); idem, l.c., 43, p. 838, 1856 (crit.;=young).

Range.—Southeastern Mexico, from Vera Cruz southwards through Central America to Colombia, Ecuador (both slopes),

eastern Peru, eastern Bolivia, Venezuela, the island of Trinidad, the Guianas, Brazil south to Matto Grosso and Santa Catharina, and Paraguay (Puerto Bertoni, Alto Paraná).

Field Museum Collection.—11: Costa Rica, Puntarenas (Boruca, 2; Buenos Aires, 1; Térraba, 1); Panama (Frances, Chiriquí, 1); Colombia (unspecified, 2); British Guiana (Rockstone, Essequibo River, 3); Brazil (Serra da Lua, Rio Branco, Amazonas, 1).

Conover Collection.—35: Costa Rica (El General, 1); Panama (Bocas del Toro, 3; El Banco, Chiriquí, 2; Miraflores Lock, Canal Zone, 1); Ecuador (San Javier, 1); British Guiana (Mazaruni River, 1; Rockstone, Essequibo River, 1); Brazil (Buenos Aires, Rio Acará, Pará, 3; Ipomonga, Rio Capim, Pará, 1; Resacca, Rio Capim, Pará, 2; Lago Cuipeua, Rio Amazonas, Pará, 6; Boim, Rio Tapajóz, Pará, 5; Tauary, Rio Tapajóz, Pará, 3; Caxiricatuba, Rio Tapajóz, Pará, 3); Bolivia (Buenavista, Santa Cruz, 2).

****Columba corensis* Jacquin. BARE-EYED PIGEON.**

Columba (corensis) Jacquin,¹ *Beytr. Gesch. Vögel*, p. 31, 1784—Coro, Venezuela.

Columba gymnophthalmos Temminck, in Temminck and Knip, *Les Pigeons*, 1, Colombes, p. 48, pl. 18,² 1809—no locality given (type in Paris Museum); Peters, *Bds. World*, 3, p. 63, 1937 (range).

Columba gymnophthalmus Hartert, *Bull. Brit. Orn. Cl.*, 3, p. xii, 1892—Curaçao, Aruba, and Bonaire; idem, *Nov. Zool.*, 9, p. 305, 1902—same localities; Darlington, *Bull. Mus. Comp. Zool.*, 71, p. 379, 1931—Donjaca, Ciénaga, and Sevillano, Magdalena, Colombia.

Columba gymnophthalma Hartert, *Ibis*, 1893, pp. 304, 322, 332—Aruba, Curaçao, and Bonaire (crit., habits); Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 269, 1893 (monog.); Robinson and Richmond, *Proc. U. S. Nat. Mus.*, 18, p. 658, 1896—west of Porlamar, Margarita Island, Venezuela, and "St. Thomas" (descr. of female); Allen, *Bull. Amer. Mus. N. H.*, 13, p. 129, 1900—Taganga, near Santa Marta, Colombia (crit.); Cory, *Field Mus. Nat. Hist., Orn. Ser.*, 1, pp. 198, 205, 210, 240, 253, 1909—Aruba, Curaçao, Bonaire, and Margarita Islands, Venezuela.

¹ There is no doubt whatever that *C. corensis* Jacquin refers to the present species, as is shown by the fragment of a bird, consisting of head, wing, and leg, from La Vela de Coro, the type locality, in the U. S. National Museum (No. 254890, March–April, 1917. H. M. Curran), which, thanks to the courtesy of the late Dr. C. W. Richmond, we have been able to compare with our series. The eye is surrounded by a large bare orbital space, the outer ring of which shows numerous small blackish granulations, precisely as in Field Museum specimens. The bill is of the same shape and color, and coloration of head and wings agrees with that of Curaçao birds. While the expression "wholly of a beautiful gray" does not well suit the Bare-eyed Pigeon with vinaceous-drab under parts and broad white longitudinal stripe on the wing, other passages in his account, such as the description of the orbital space and neck-feathers, fit it exactly, to the exclusion of any other species.

² The orbital space is wrongly colored.

Crossophthalmus gymnophthalmos Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 321, 1916—arid coast of Venezuela and Colombia, Dutch West Indies, and "St. Thomas" (monog.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 195, 1922—Ciénaga, Gaira, Donjaca, and Barranquilla, Colombia, and Tucuyo, Venezuela; Wetmore, Sci. Surv. Porto Rico and Virgin Islands, 9, p. 394, 1927—"St. Thomas" (locality questioned).

Columba gymnophthalmos Wetmore, Proc. U. S. Nat. Mus., 87, p. 195, 1939—El Sombrero, Rio Guaríco, Guaríco, Venezuela.

Range.—Arid coast district of northern Colombia (Barranquilla; Taganga, Gaira, Donjaca, Ciénaga, and Sevillano, Magdalena; La Goajira) and Venezuela (Vela de Coro, Falcon; Tucuyo, Lara; El Sombrero, Guaríco; Margarita Island), and the adjacent islands of Aruba, Curaçao, and Bonaire.¹

Field Museum Collection.—7: Dutch West Indies (Aruba, 1; Curaçao, 1; Bonaire, 3); Venezuela, Margarita Island (Porlamar, Nueva Esparta, 2).

Conover Collection.—2: Dutch West Indies (St. Patrick, Curaçao Island, 1); Venezuela (Tucuyo, 1).

****Columba picazuro picazuro* Temminck. PICAZURO PIGEON.**

Columba picazuro Temminck, Hist. Nat. Pig. Gall., 1, pp. 111, 449, 1813—based on "Picazuro" Azara, No. 317, Paraguay; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 143—Conchitas, Buenos Aires; Durnford, Ibis, 1878, p. 65—Buenos Aires; Gibson, Ibis, 1880, p. 6—Cape San Antonio, Buenos Aires; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 54, 1881—southern Buenos Aires; Barrows, Auk, 1, p. 274, 1884—Concepción del Uruguay, Entre Ríos; Dalgleish, Proc. Roy. Phys. Soc. Edin., 8, p. 88, 1884—Est. de la Tala, Prov. Durazno, Uruguay; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 176, 1885—Taquara, Rio Grande do Sul; Sclater and Hudson, Arg. Orn., 2, p. 139, 1889—Argentina; Frenzel, Journ. Orn., 39, p. 123, 1891—Sierra de Córdoba; Kerr, Ibis, 1892, p. 147—Fortín Page, lower Pilcomayo, Paraguay; Salvadori, Cat. Bds. Brit. Mus., 21, p. 271, 1893—Buenos Aires (Conchitas), Uruguay (Maldonado), Matto Grosso (Engenho do Gama, Cuyabá), and "Bolivia"; Aplin, Ibis, 1894, p. 201—Uruguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 22, 1895—Colonia Rizzo, Paraguay; idem, l.c., 12, No. 292, p. 32, 1897—Salta (Campo Santo) and Bolivia (Caiza, Tarija); Holland, Ibis, 1896, p. 318—Santa Elena, Entre Ríos; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 146, 1899—Mundo Novo and São Lourenço, Rio Grande do Sul; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 14, 1900—Urucúm, Matto Grosso; Kerr, Ibis, 1901, p. 234—Paraguayan Chaco; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 215, 1902—Tapia and Trancas, Tucumán; Lönnberg, Ibis, 1903, p. 459—Colonia Crévaux, Tarija, Bolivia; Baer,

¹ Wetmore considers the specimen in the U. S. National Museum from "St. Thomas, A. D. Ormes" to be incorrectly labeled.

Four additional specimens from the Dutch West Indies, two from Colombia (Gaira and Ciénaga), and a fragment from La Vela de Coro, Venezuela, examined.

- Ornis, 12, p. 232, 1904—Tapia, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 70, 1905—Tapia and Trancas, Tucumán; Ihering, Cat. Faun. Braz., 1, p. 18, 1907—São Lourenço, Rio Grande do Sul (range in part); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 191, 1910 (range in Argentina); Grant, Ibis, 1911, p. 459—Paraguay (Tebicuari, Villa Franca), Matto Grosso (Puerto Esperança, near Albuquerque), and Buenos Aires (Los Ynglases, Ajó); Bertoni, Faun. Parag., p. 36, 1914—Paraguay; Ménégau, Rev. Franç. d'Orn., 1917, p. 25—São Luiz de Cáceres, Matto Grosso; Gibson, Ibis, 1920, p. 35—Cape San Antonio, Buenos Aires; Dinelli, El Hornero, 4, p. 275, 1929—Tucumán (eggs descr.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 402, 1930—Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 85, 1930—Bolivia (Villa Montes, Tarija) and Formosa (Yuncá Viejo, Tacaaaglé) (crit.); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 377, 1934—Descalvados, Matto Grosso.
- Columba loricata* Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 67, 1823—based on "Picazuro" Azara, No. 317, Paraguay and Montevideo; Darwin, Zool. Beagle, 3, Birds, p. 115, 1841—Maldonado, Uruguay.
- Crossophthalmus gymnophthalmus* (not *Columba gymnophthalmos* Temminck) Bonaparte, Consp. Gen. Av., 2, p. 55, 1857—part, Brazil and Paraguay; Pelzeln, Orn. Bras., 3, p. 274, 1870—Cuyabá, Sangrador, and Engenho do Gama, Matto Grosso (spec. examined).
- Palagioenas maculosa* (not *Columba maculosa* Temminck) Burmeister, Journ. Orn., 8, p. 258, 1860—Argentina (in part); idem, Reise La Plata St., 2, p. 496, 1861 (in part).
- Columba maculosa* Durnford, Ibis, 1877, p. 193—north of Buenos Aires (Baradero).
- Columba picazuro venturiana* Hartert, Nov. Zool., 16, p. 260, 1909—Mocoví, Santa Fé, Argentina (type in Tring Collection, now in the American Museum of Natural History, New York).
- Picazurus picazuro* Marelli, El Hornero, 1, p. 75, 1918—Curuzú-Cuatíá, Corrientes; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Minas, Maldonado, Treinta y Tres, Montevideo, Rocha); Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 81, 1923—La Rioja.
- Picazurus picazuro picazuro* Dabbene, El Hornero, 1, p. 30, 1917—Isla Martín García, Buenos Aires, and Las Palmas, Chaco Austral; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 598, 1924—Prov. Buenos Aires.
- Picazuros picazuro picazuro* Wetmore, Bull. U. S. Nat. Mus., 133, p. 182, 1926—Formosa (Riacho Pilaga, Formosa).
- Columba picazuro picazuro* Naumburg, Amer. Mus. Nov., 554, p. 4, 1932—Paraguay (Rio Ypané, Fort Wheeler), Rio Grande do Sul, Bolivia, and Argentina; Peters, Bds. World, 3, p. 62, 1937 (range).
- Picazuros picazuro reichenbachii* (not *Crossophthalmus reichenbachii* Bonaparte) Wetmore, Bull. U. S. Nat. Mus., 133, p. 184, 1926—San Vicente, Uruguay (crit.).

Range.—Eastern Bolivia (in depts. of Santa Cruz and Tarija); northern Argentina south to La Rioja, Córdoba, and Buenos Aires

Province; Paraguay; Uruguay; extreme southern Brazil (in states of Matto Grosso and Rio Grande do Sul).¹

Field Museum Collection.—3: Uruguay (Arroyo Sauce, Rocha, 1); Argentina (Ajó, Buenos Aires, 1; Trancas, Tucumán, 1).

Conover Collection.—22: Brazil (Santa Catharina, 1); Paraguay (Horqueta, 5); Bolivia (Buenavista, Santa Cruz, 8; Rio Surutú, Santa Cruz, 1); Argentina (Santa Ana, Misiones, 3; Rio Bermejo, Salta, 1; Tapia, Tucumán, 1; Rio Colorado, Tucumán, 1; Los Ingleses, Buenos Aires, 1).

****Columba picazuro marginalis* Naumburg.² NORTHERN PICA-ZURO PIGEON.**

Columba picazuro marginalis Naumburg, Amer. Mus. Nov., 554, p. 3, 1932—Corrente, Piauhý, Brazil (type in the American Museum of Natural History, New York); Peters, Bds. World, 3, p. 63, 1937 (range).

Columba picazuro (not of Temminck) Forbes, Ibis, 1881, p. 356—Parahyba and Pernambuco (Quipapá, Garunhuns); Ihering, Cat. Faun. Braz., 1, p. 18, 1907—part, Bahia and Pernambuco; (?) Hellmayr, Nov. Zool., 15, p. 90, 1908—Rio Araguaya, Goyáz; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 86, 1910—Bahia (Solidade, near Carnahyba; Barra do Rio Grande) and Piauhý (Parnaguá); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 462, 1929—Ibiapaba, Piauhý (crit.).

Columba leucoptera (not of Linnaeus) Wied, Reise Bras., 2, p. 242 (ed. in 8vo, p. 241), 1821—Rio das Contas, Bahia.

Columba poecilopectera (not of Vieillot) Wied, Beitr. Naturg. Bras., 4, (2), p. 459, 1833—Rio das Contas, Bahia.

Columba gymnophthalma (not of Temminck) Allen, Bull. Amer. Mus. N. H., 2, p. 270, 1889 (ex *C. leucoptera* Wied).

Range.—Northeastern Brazil, from Piauhý and Parnahyba south to Bahia, west probably to Goyáz.

Conover Collection.—1: Brazil (Ibiapaba, Piauhý, 1).

¹ Birds from the Chaco Santafecino (*venturiana*), Tucumán, and Bolivia agree with two Paraguayan topotypes, and those from Matto Grosso, while averaging slightly darker, are not separable either. Hartert, when describing *venturiana*, appears to have compared it only with a series from Goyáz, which is probably referable to *marginalis*.

Additional material examined.—Paraguay: Rio Ypané, 1; Paraguayan Chaco, 1.—Argentina: Santa Fé, 1; Yuncá Viejo, Formosa, 3; Tapia, Tucumán, 2.—Brazil: Cuyabá, Matto Grosso, 5.

² *Columba picazuro marginalis* Naumburg: Similar to the nominate race, but on average smaller, under parts brighter and more uniform pinkish, breast and abdomen not at all grayish; white edges to upper wing coverts much broader, forming a much more prominent longitudinal stripe on the wing; dorsal coloration paler with more conspicuous pale brownish or whitish-brown apical edges; rump and tail coverts rather lighter gray. Wing, 212–250, (female) 210; tail, 117–122.

Birds from Goyáz should be re-examined. Judging from Hartert's remarks, they would seem to be referable to the race of northeastern Brazil.

Additional material examined.—Piauhý: Parnaguá, 1.—Bahia: Barra, Rio Grande, 3; Solidade, Rio São Francisco, 1.

****Columba maculosa albipennis* Scater and Salvin.¹ WHITE-WINGED PIGEON.**

Columba albipennis Scater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 18—Pitumarca, Peru, and Bolivia (type, from Pitumarca, Dept. Cuzco, Peru, in Salvin-Godman Collection, now in British Museum); Taczanowski, Orn. Pér., 3, p. 232, 1886—Paucartambo and Pitumarca, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 272, pl. 8, 1893—southern Peru (Pitumarca) and Bolivia; Berlepsch and Stolzmann, Ornith., 13, pp. 72, 104, 1906—Pauza (Puiura), Ayacucho, and Urquillos, Cuzco, Peru; Chubb, Ibis, 1919, p. 29—Parotani, Bolivia; Chapman, Bull. U. S. Nat. Mus., 117, p. 45, 1921—Ollantaytambo, Urubamba, Peru.

Crossophthalmus gymnophthalmos (not *Columba gymnophthalmos* Temminck) Bonaparte, Consp. Gen. Av., 2, p. 55, 1857—part, Sicasica, Bolivia (spec. in Paris Museum examined).

Columba maculosa (not of Temminck) Scater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 600—Pitumarca, Peru; *idem*, l.c., 1873, p. 186—Paucartambo, Peru; Oustalet, Miss. Sci. Cap Horn, 6, p. B. 286, 1891—part, Bolivia.

Columba maculosa albipennis Peters, Bds. World, 3, p. 63, 1937 (range); Morrison, Ibis, 1939, p. 461—Yauli, Anco, and Huancavelica, Peru.

Range.—Temperate zone of southern Peru, in depts. of Cuzco (Pitumarca, Paucartambo, Ollantaytambo, Urquillos), Huancavelica (Yauli, Anco, Huancavelica), and Ayacucho (Pauza), and western Bolivia.

Conover Collection.—8: Bolivia (Comarapa, Santa Cruz, 1; Pocona, Cochabamba, 1; Incayagta, Cochabamba, 1; Aiquile, Cochabamba, 1; Tiu-Tiu, Cochabamba, 4).

****Columba maculosa maculosa* Temminck. SPOTTED-WINGED PIGEON.**

Columba maculosa Temminck, Hist. Nat. Fig. Gall., 1, pp. 113, 450, 1813—based on “Paloma cobijas manchadas” Azara, No. 318; between 27° and 28° S. lat., Paraguay; Scater and Hudson, Proc. Zool. Soc. Lond., 1872, pp. 545, 549—Rio Negro, Patagonia; Leybold, Excursion Pamp. Arj., p. 89, 1873—Est. Lláucha, south of San Carlos, Mendoza; Durnford, Ibis, 1877, p. 42—Chubut Valley; *idem*, Ibis, 1878, p. 401—Chubut Valley; Doering,

¹ *Columba maculosa albipennis* Scater and Salvin chiefly differs from the nominate race by larger size; by the lesser and median wing coverts being apically edged (instead of triangularly spotted) with white, and by the much wider white outer margins to the greater wing coverts. Specimens vary somewhat inter se in the amount of white on the wings, which appears to be most extensive in those from Bolivia.

Although *C. m. albipennis* resembles *C. p. picazuro* in wing-pattern, the two pigeons appear to be specifically distinct, since their ranges coincide in Uruguay as well as over an extensive area in Argentina.

Additional material examined.—Peru: Pauza, Ayacucho, 1; Paucartambo, Cuzco, 1.—Bolivia: Sicasica, 1; Olguin, 1.

in Roca, Inf. Ofic. Exp. Río Negro, Zool., p. 55, 1881—Carhué (Buenos Aires), Río Colorado, and Río Negro; White, Proc. Zool. Soc. Lond., 1882, p. 626—Fuerte de Andalgalá, Catamarca; Barrows, Auk, 1, p. 274, 1884—Concepción del Uruguay, Entre Ríos, and Carhué, Buenos Aires (nest and eggs descr.); Gibson, Ibis, 1885, p. 282—Paysandú, Uruguay; Sclater and Hudson, Arg. Orn., 2, p. 140, 1889—Argentina; Stempelmann and Schulz, Bol. Acad. Cienc. Córdoba, 10, p. 403, 1890—Córdoba; Oustalet, Miss. Sci. Cap Horn, 6, p. B. 286, 1891—part, Argentina and Patagonia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 273, 1893—Argentina (Cosquín, Córdoba; Mendoza; Río Negro) and Uruguay; Aplin, Ibis, 1894, p. 201—Uruguay (Río Negro, Santa Elena, Monzón, Arroyo Grande); Koslowsky, Rev. Mus. La Plata, 6, p. 286, 1895—Chilecito, La Rioja; Holland, Ibis, 1896, p. 318—Santa Elena, Buenos Aires (in winter); Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 32, 1897—Tala, Salta; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902—Tucumán (Tucumán, Yerba-buena, Tapia, Trancas); Lönnberg, Ibis, 1903, p. 459—Colonia Crévaux, Tarija, Bolivia; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Rosario de Lerma, Salta; Baer, Ornith., 12, p. 232, 1904—Tapia, Tucumán; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, Orn., p. 34, 1904—Patagonia; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 70, 1905—Tucumán localities; Ihering, Cat. Faun. Braz., 1, p. 19, 1907—Mendoza; Hartert and Venturi, Nov. Zool., 16, p. 261, 1909—Tucumán (Tapia), Salta (Arenal), and Entre Ríos (La Soledad); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 191, 1910 (range in Argentina); Bertoni, Faun. Parag., p. 36, 1914—Paraguay; Dinelli, El Hornero, 4, p. 275, 1929—Tucumán (habits).

Columba poiciloptera Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 344, 1818—based on Azara, No. 318; Wagler, Syst. Av., 1, fol. 16, sp. 49, 1827—Paraguay (ex Azara, No. 318).

Crossophthalmus reichenbachi Bonaparte,¹ Compt. Rend. Acad. Sci. Paris, 39, No. 24, p. 1110, for Dec. 11, 1854—no locality given (diag.); idem, l.c.,

¹ *Crossophthalmus reichenbachi* Bonaparte, first briefly diagnosed (Compt. Rend. Acad. Sci., Dec. 11, 1854), was based, as we learn from the describer's subsequent account (Consp. Gen. Av.), on an adult and a young bird sent by d'Orbigny to the Paris Museum. This institution has three mounted individuals of this group of white-winged pigeons from that source, which have been carefully studied by the senior author: "No. 11.394 A. Bolivia, M. d'Orbigny, 1834, No. 465. Male. *Chlor. maculosa* T." is clearly the specimen from Sicasica, "1824," mentioned by Bonaparte under *C. gymnophthalmus* (he erroneously considered *C. picazuro* to be the young of the same species), and belongs to *C. m. albipennis*. Two other examples, No. 11.394 B and No. 11.392, differ by smaller size, shorter and slenderer bill, darker coloration with more decidedly pinkish under parts, and by lacking the broad white edges to the outer webs of the greater upper wing coverts ("*tectricibus alarum margine tantum albo*"). Both are typical *maculosa* with triangular dingy white apical spots to the smaller, and hardly with an indication of a narrow external white fringe to the greater wing coverts. Though the name does not occur on the labels (both are marked "*Chlor. maculosa* T."), there seems little doubt that these specimens are the ones which served as basis for *C. reichenbachi*. No. 11.394 B, though labeled "Bolivia," was, according to the year it bears (1831), secured in Patagonia, viz., on the lower Río Negro; while No. 11.392, "République Argentine, 1829," originated probably in Corrientes. It will be noticed that Bonaparte (Compt. Rend. Acad. Sci. Paris, 43, p. 839, 1856) subsequently discovered the identity of his *C. reichenbachi* with *C. maculosa*.

43, p. 839, 1856 (crit.); idem, *Consp. Gen. Av.*, 2, p. 55, 1857—Patagonia and "Paraguay" (type in Paris Museum).

Patagioenas maculosa Burmeister, *Journ. Orn.*, 8, p. 258, 1860—Córdoba, Uruguay, and Tucumán (in part); idem, *Reise La Plata St.*, 2, p. 496, 1861—Mendoza, Córdoba, and Tucumán (part, young); Frenzel, *Journ. Orn.*, 39, p. 123, 1891—Córdoba.

Chloroenas fallax Schlegel, *Mus. Pays-Bas*, 4, No. 35, p. 80, 1873—"Mexico," errore, and Rio Negro, Patagonia (type in Leiden Museum).

Notioenas maculosa Marelli, *El Hornero*, 1, p. 75, 1918—Curuzú-Cuatíá, Corrientes; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Treinta y Tres, Cerro Largo, Rocha); Giacomelli, l.c., 3, p. 81, 1923—La Rioja; Marelli, *Mem. Min. Obr. Públ.* for 1922–23, p. 598, 1924—Prov. Buenos Aires; Pereyra, *El Hornero*, 4, p. 28, 1927—San Rafael, Mendoza; Castellanos, l.c., 4, p. 367, 1931—Valle de los Reartes, Córdoba, and Pózo del Norte, San Luis.

Notioenas maculosa maculosa Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 185, 1926—Lazcano, Uruguay.

Notioenas maculosa fallax Wetmore, l.c., p. 185, 1926—Victorica, Pampa (crit.).

(?)*Columba meridionalis* (not of Latham) Peale, *U. S. Expl. Exp.*, 8, p. 188, 1848—Rio Negro, Patagonia.

Columba maculosa maculosa Peters, *Bds. World*, 3, p. 63, 1937 (range).

Range.—Uruguay; northern Argentina south to the Rio Negro; and the adjacent parts of Paraguay and Bolivia (Colonia Crévaux, Dept. Tarija).¹

Conover Collection.—3: Argentina (Puhi Mahuida, Rio Negro, 1; Tapia, Tucumán, 2).

**Columba caribaea* Jacquin. JAMAICAN BAND-TAILED PIGEON.

Columba (caribaea) Jacquin,² *Beytr. Gesch. Vögel*, p. 30, 1784—"Karibäische Inseln."

Columba caribaea Temminck, in Temminck and Knip, *Les Pigeons*, 1, Colombes, p. 22, pl. 10, 1809—"Porto Rico" (spec. ex coll. Maugé in Paris Museum); idem, *Hist. Nat. Fig. Gall.*, 1, pp. 114, 450, 1813—"Porto Rico" and Jamaica; Cory, *Auk*, 4, p. 110, 1887—Jamaica and "Porto Rico"; idem, *Bds. W. Ind.*, p. 211, 1889—Jamaica and "Porto Rico" (descr.); idem, *Cat. W. Ind. Bds.*, pp. 97, 138, 1892—Jamaica and "Porto Rico"; Scott, *Auk*, 9, p. 122, 1892—vicinity of Boston, Portland, Jamaica; Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 290, 1893—Trelawny and Spanish Town, Jamaica; Wetmore, *Sci. Surv. Porto Rico and Virgin Is.*, 9, p. 392,

¹ Subdivision of this form is impracticable, the intensity of coloration being variable irrespective of locality. Its breeding range remains to be determined, and in part of the above area it obviously occurs only as a visitor.

² Jacquin's short description is altogether insufficient, and identifiable as pertaining to the present species only through his reference to Brisson's "Pigeon à queue annelée de la Jamaïque" (*Orn.*, 1, p. 138), whose account is, however, again faulty with respect to the coloration of the abdomen said to be "white."

1927—"Porto Rico" (ex Wagler); Peters, Bds. World, 3, p. 66, 1937 (range).

Columba lamprauchen Wagler, Syst. Av., 1, fol. 16, sp. 46, 1827—"Porto Rico" (type ex coll. Maugé in Paris Museum).

Columba caribbea Gosse, Bds. Jamaica, p. 291, 1847—Jamaica (habits).

Patagioenas caribaea Sclater, Proc. Zool. Soc. Lond., 1861, p. 80—Jamaica.

Columba caribea March, Proc. Acad. Nat. Sci. Phila., 1863, p. 301—Jamaica.

Chloroenas caribaea Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 294, 1916.—Jamaica and (?) Porto Rico (monog., full bibliog.).

Range.—Island of Jamaica, Greater Antilles.¹

Field Museum Collection. —4: Jamaica, Surrey (Priestman's River, 2; St. Andrew's Parish, 1; St. George's Parish, 1).

***Columba fasciata fasciata Say. BAND-TAILED PIGEON.**

Columba fasciata Say, in Long, Exped. Rocky Mts., 2, p. 10 (note), 1823—tributary of the Platte=Plum Creek, near Castle Rock, Douglas County, Colorado (type lost, formerly in coll. of T. R. Peale); Salvadori, Cat. Bds. Brit. Mus., 21, p. 291, 1893—part, spec. a-q', western North America to Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 237, 1902—part, North America to Guatemala.

Columba monilis Vigors, Zool. Voy. Blossom, p. 26, pl. 10, 1839—Monterey, California (type lost, once in coll. of Zoological Society of London; cf. Grinnell, Univ. Calif. Pub. Zool., 38, p. 275, 1932).

Columba fasciata fasciata Miller, Bull. Amer. Mus. N. H., 22, p. 163, 1906—La Ciénaga, northwestern Durango; Grinnell, Univ. Calif. Pub. Zool., 32, p. 103, 1928—Sierra San Pedro Mártir and Sierra Juárez, Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 247, 1931—Sarıc, Sonora; Bent, Bull. U. S. Nat. Mus., 162, p. 353, 1932 (life hist.); Griscom, Bull. Amer. Mus. N. H., 64, p. 110, 1932—Momostenango and La Primavera, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 372, 1934—Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 434, 1935—Pinos Altos and Oposura, Sonora; Peters, Bds. World, 3, p. 67, 1937 (range).

Chloroenas fasciata fasciata Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 228, 1916—part, western North America to Guatemala (monog., full bibliog.).

Range.—Western North America, from southwestern British Columbia, Montana, and north-central Colorado south through the southwestern United States to northern Lower California, Mexico, and Guatemala, east to western Texas; accidental in North Dakota.²

¹ The inclusion of this bird in the fauna of Puerto Rico rests solely on the type of *C. lamprauchen* said to have been obtained on that island by Maugé. It is a well-known fact, however, that the collections of that naturalist were mixed up in the Paris Museum, and an error in labeling this particular specimen is very likely to have been made.

² Birds from Guatemala average somewhat smaller and have a more pointed wing, thus closely approaching the supposed southern race *letonai*, but appear to be more brownish on the upper parts.

Field Museum Collection.—31: Arizona (Huachuca Mountains, Cochise County, 15); California (Nicasio, Marin County, 1; Olema, Marin County, 3; Monterey, Monterey County, 1); Mexico (Babiora, Chihuahua, 1; Samachique, Chihuahua, 2; Sierra Taruhumaro, Chihuahua, 1; Coyotes, Durango, 3); Guatemala (8 miles east of Salamá, Baja Verapaz, 1; Tecpan, Chimaltenango, 1; Volcano Tajumulco, San Marcos, 2).

Conover Collection.—12: Oregon (Blaine, Tillamook County, 1; Scio, Linn County, 4); Texas (Davis Mountains, 2); Arizona (Paradise, Cochise County, 2); California (Placerita Canyon, Los Angeles County, 1); Mexico (Horsetail Falls, Nueva Leon, 1; Tancitaro, Michoacan, 1).

****Columba fasciata vioscae* Brewster. VIOSCA'S PIGEON.**

Columba fasciata vioscae Brewster, Auk, 5, p. 86, 1888—La Laguna, Lower California (cotypes in coll. of W. Brewster, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 163, 1930); idem, Bull. Mus. Comp. Zool., 41, p. 77, 1902—Cape region of Lower California; Townsend, Bull. Amer. Mus. N. H., 48, p. 13, 1923—Miraflores; Grinnell, Univ. Calif. Pub. Zool., 32, p. 104, 1928—Cape District; Bent, Bull. U. S. Nat. Mus., 162, p. 363, 1932 (life hist.); Peters, Bds. World, 3, p. 67, 1937 (range).

Columba vioscae Salvadori, Cat. Bds. Brit. Mus., 21, p. 293, 1893—San José del Rancho, Lower California.

Chloroenas fasciata vioscae Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 292, 1916—southern Lower California (monog., full bibliog.).

Range.—Cape district of Lower California in the Sierra de la Laguna..

Field Museum Collection.—4: Lower California (unspecified, 2; El Sauz, Sierra de la Laguna, 2).

Conover Collection.—6: Lower California (El Sauz, Sierra de la Laguna, 6).

****Columba fasciata letonai* Dickey and van Rossem.¹ SALVADOR BAND-TAILED PIGEON.**

Columba fasciata letonai Dickey and van Rossem, Proc. Biol. Soc. Wash., 39, p. 109, 1926—Cacaguatique, Dept. San Miguel, El Salvador (type in

¹ *Columba fasciata letonai* Dickey and van Rossem: Said to differ from the nominate race by more pointed wing; duller, more grayish purple under parts and head; and somewhat more grayish upper surface.

This is a very questionable race. Two specimens from western Honduras examined by the senior author can be matched in color and size by various Mexican and Guatemalan examples, and Stone came to the same conclusion after the study of two adult males from San Juancito and one from El Salvador. Cf. also Griscom's remarks on the variation in the shape of the wing among southern examples.

coll. of Donald R. Dickey, now in the University of California at Los Angeles); Peters, Bds. World, 3, p. 67, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 185, 1938—Mount Cacaguatique, Volcan de San Miguel, Los Esesmiles, and Volcan de Santa Ana, El Salvador.

Columba fasciata fasciata (not of Say) Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 305, 1932—San Juancito, Honduras (crit.).

Range.—Oak and pine forests of El Salvador and Honduras.

Field Museum Collection.—2: El Salvador (Volcan Santa Ana, Santa Ana, 1; Los Esesmiles, Chalatenango, 1).

Conover Collection.—3: Honduras (Cantoral, Tegucigalpa, 2; La Flor, Archaga, Tegucigalpa, 1).

***Columba fasciata parva* Griscom.¹ NICARAGUAN BAND-TAILED PIGEON.**

Columba fasciata parva Griscom, Ibis, (13), 5, p. 553, 1935—Matagalpa, Nicaragua (type in British Museum); Peters, Bds. World, 3, p. 67, 1937 (range).

Columba fasciata (not of Say) Salvin and Godman, Ibis, 1892, p. 328—Matagalpa; Salvadori, Cat. Bds. Brit. Mus., 21, p. 291, 1893—part, spec. r'-t', Matagalpa and San Rafael del Norte, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 237, 1902—part, Nicaragua (Matagalpa, San Rafael).

Chloroenas fasciata fasciata Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 288, 1916—part, Nicaragua (Matagalpa, San Rafael).

Range.—Oak forests of northern Nicaragua (Matagalpa, San Rafael del Norte).

****Columba fasciata crissalis* Salvadori.² COSTA RICAN BAND-TAILED PIGEON.**

Columba crissalis Salvadori, Cat. Bds. Brit. Mus., 21, p. 294, 1893—Boquete de Chitrá, Veraguas, Panama (type in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 238, 1902—Costa Rica and western Panama (Chiriquí and Veraguas).

Chloroenas albilinea (not *Columba albilinea* Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 135, 1868—Rancho Redondo and San Juan, Costa Rica; Cabanis, Journ. Orn., 17, p. 211, 1869—Costa Rica (crit.); Frantzius, l.c., p. 370, 1869—El Mojón and San Juan, Costa Rica.

¹ *Columba fasciata parva* Griscom: Similar to *C. f. letonai* in having the tenth primary much longer than the seventh; but decidedly darker and browner above, even darker than *C. f. fasciata*; dimensions markedly less than in either of its allies. Wing 193–195, (female) 192 (Griscom, l.c.).

² The *C. albilinea* group is clearly conspecific with *C. fasciata*, the Costa Rican form being, as far as coloration is concerned, in a way intermediate to the northern races.

Columba albilinea Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Veraguas (Chitrá, Boquete de Chitrá, Calovévora, Calóbre) and Chiriquí (Volcan de Chiriquí); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—San José and Alajuela, Costa Rica; Cherrie, Auk, 9, p. 328, 1892—San José and Volcan de Irazú, Costa Rica.

Columba albilineata Boucard, Proc. Zool. Soc. Lond., 1878, p. 43—Desamparados, Volcan de Irazú, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 5, p. 498, 1883—Volcan de Irazú.

Columba albilinea crissalis Bangs, Proc. New Engl. Zool. Cl., 3, p. 23, 1902—Boquete and Volcan de Chiriquí, Panama (crit.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 261, 1910—Volcan de Turrialba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 394, 1910—Costa Rica (Volcan de Turrialba, Santa María de Dota, La Carpintera, La Estrella de Cartago, Escazú, Volcan de Póas, slopes of Irazú, Ujurrás de Térraba, Miravalles, Bagáces) (crit.); Griscom, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Panama; Peters, Bds. World, 3, p. 67, 1937 (range).

Chloroenas albilinea crissalis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 292, 1916 (monog., full bibliog.).

Range.—Subtropical zone of Costa Rica and western Panama (Chiriquí and Veraguas).¹

Field Museum Collection.—5: Costa Rica (Volcan de Turrialba, Cartago, 3; Angostura, 1; Carrillo, Heredia, 1).

Conover Collection.—4: Costa Rica (Volcan de Turrialba, Cartago, 1; Rancho Redondo, Volcan Irazú, 1; San Joaquin de Dota, 1; Las Vueltas, 1).

****Columba fasciata albilinea* Bonaparte. WHITE-NAPED PIGEON.**

Columba albilinea (G. R. Gray MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 39, No. 24, p. 1108, for Dec. 11, 1854—"l'Amérique méridionale" = Bogotá, Colombia (type in coll. of Messrs. Verreaux);² Sclater, Proc. Zool. Soc. Lond., 28, p. 72, 1860—Chillanes, Ecuador; Sclater and Salvin, l.c., 1873, p. 186—Ccachupata, Cuzco, Peru; idem, l.c., 1879, p. 639—Ramosani and Tilotilo, Bolivia; Berlepsch and Taczanowski, l.c., 1884, p. 311—Bugnac, Ecuador; Salvadori, Cat. Bds. Brit. Mus., 21, p. 294, 1893—part, spec. c-m, Colombia (Santa Marta, Retiro), Ecuador (Sical), and Bolivia (Tilotilo, Ramosani); Salvin, Nov. Zool., 2, p. 20, 1895—Cajabamba, Peru; Bangs, Proc. Biol. Soc. Wash., 12, p. 172, 1898—Palomina, Colombia; idem, Proc. New Engl. Zool. Cl., 1, p. 75, 1899—San Sebastian and El Mamon, Colombia; Salvadori and Festa, Boll. Mus.

¹ Birds from Chiriquí and Costa Rica agree well.

² Bonaparte expressly states that the diagnosis was drawn up from a specimen in the possession of the Verreaux brothers, who promised to present it to the Paris Museum. We do not know whether or not this commendable plan was carried out, but at all events the two skins in the British Museum listed as "types" have no claims to this dignity, unless one of them be the specimen once in Verreaux's hands. As we have since ascertained, the type is neither in London nor in Paris.

- Zool. Torino, 15, No. 368, p. 34, 1900—Pun, La Concepción, and "Nanegal," Ecuador; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 43—Maraynioc, Peru; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902—Cerro de San Javier, San Pablo, and Cumbre de La Hoyada, Tucumán; Baer, Ornith., 12, p. 232, 1904—La Criolla, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 70, 1905—Cerro de San Javier, San Pablo, and Cumbre de la Hoyada, Tucumán; Hartert and Venturi, Nov. Zool., 16, p. 261, 1909—Villa Nougues, La Criolla, and Cumbre San Pablo, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 191, 1910—cerros of Tucumán; Ménégaux, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B. 5, 1911—Alaspungo and Chambo, Ecuador; Chubb, Ibis, 1919, p. 30—Ecuador (Guallabamba, Riobamba) and Bolivia (Chulumani, Choro, Cocapata); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 17, 1922—above Nono, above Lloa, Pichincha, west side of Mojanda, and near Rio Cumbaya, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 355, 1927—Cerro Mojanda, Ecuador.
- Columba albolineata* G. R. Gray, List Spec. Bds. Brit. Mus., 4, p. 34, 1856—New Grenada.
- Chloroenas albilinea* Bonaparte, Consp. Gen. Av., 2, sig. Nov. 20, 1854, p. 51, "April 15, 1855" [=1857]—New Granada (descr. of spec. in British Museum); Sclater, Proc. Zool. Soc. Lond., 23, p. 163, 1855—Bogotá, Colombia; idem, l.c., 26, p. 556, 1858—Matos, Ecuador.
- Chloroenas denisea* (not *Columba denisea* Temminck) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 555—Maraynioc and Auquimarca, Peru.
- Columba denisea* (not Temminck) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 48—Chirimoto, Peru (egg descr.).
- Columba albilinea* Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 235—Mérida, Venezuela; iidem, l.c., 1879, p. 543—Retiro, Colombia; Taczanowski, Orn. Pér., 3, p. 232, 1886—Peru (Maraynioc, Auquimarca, Chirimoto, Paucal, Ccachupata); Allen, Bull. Amer. Mus. N. H., 13, p. 129, 1900—Valparaiso, Colombia.
- Columba guayaquilensis* Ridgway, Proc. U. S. Nat. Mus., 11, p. 112, 1888—"Guayaquil," errore (type in U. S. National Museum).
- Columba tucumana* Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 22, 1895—San Pablo, Tucumán (type in Turin Museum;=young); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902 (ex Salvadori).
- Columba albilinea albilinea* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1205—Loma Hermosa, Rio Jamaraya, western Andes, Colombia; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 159, 1912—Cumbre de Valencia, Carabobo, Venezuela (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 203, 1917—Paramillo, San Antonio, La Florida, Cerro Munchique, Ricaurte, Almaguer, Valle de las Pappas, La Sierra, Miraflores, Salento, Laguneta, Santa Elena, Barro Blanco, Rio Toché, La Candela, and San Agustin, Colombia; idem, Bull. U. S. Nat. Mus., 117, p. 45, 1921—Occobamba Valley and above Torontoy, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 162, 1926—Ecuador (Huigra, near Chunchi, El Chiral, above Baeza, below Cerro Huamani, below Oyacachi, upper Sumaco); Dinelli, El Hornero, 4, p. 276, 1929—cerros of Tucumán;

Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 256, 1930—mountains near Huánuco, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 621, 1932—El Portete de Tarquí, Cuenca, Ecuador; Belcher and Smooker, Ibis, 1936, p. 2—River Estate and Maraval, Trinidad (nest and eggs descr.); Peters, Bds. World, 3, p. 68, 1937 (range); Morrison, Ibis, 1939, p. 461—Anco, Huancavelica, Peru.

Chloroenas albilinea Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 33, 1922—Rio Mucujón and Páramo Tambor, Mérida, Venezuela.

Chloroenas albilinea albilinea Todd and Carriker, Ann. Carnegie Mus., 14, p. 197, 1922—San Miguel, Cerro de Caracas, Páramo de Mamarongo, Taquino, San Lorenzo, Las Vegas, Sierra Nevada de Santa Marta, and Cincinnati, Colombia (crit.).

Columba albilinea tucumana Peters, Bds. World, 3, p. 68, 1937 (range).

Range.—Subtropical and Temperate zones of the Andes from northwestern Argentina (cerros of Tucumán) to Colombia (all three ranges and Santa Marta Mountains) and western Venezuela (Sierra of Mérida) and east through the Venezuelan north coast mountains to the island of Trinidad.¹

Field Museum Collection.—8: Venezuela (Mount Turumiquire, Sucre, 2); Colombia (unspecified, 2; Santa Elena, Antioquia, 2); Peru (Huánuco Mountains, Huánuco, 1; Hacienda Llagueda, Libertad, 1).

Conover Collection.—27: Venezuela, Mérida (Rio Mucujón, 3; Páramo Tambor, 3); Colombia (El Tambo, Cauca, 6); Ecuador (Nono, Lloa, 1; Cochaseca Range, 1; Alaspungo, 3; Itagua, 1; Illiniza, Prov. Pichincha, 1; Cerro Cotopaxi, 1; San Fernando, Azuay, 1); Peru (Huánuco Mountains, Huánuco, 1); Bolivia (Yungas de Cochabamba, Cochabamba, 1; Incachaca, Cochabamba, 1; Lambate, La Paz, 1); Argentina (La Criolla, Tucumán, 1; Jujuy, 1).

***Columba fasciata roraimae* Chapman.² RORAIMA PIGEON.**

Columba albilinea roraimae Chapman, Amer. Mus. Nov., 341, p. 1, 1929—Philipp Camp, Roraima, Venezuela (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 63, p. 63, 1931—Roraima (Philipp Camp, Rondon Camp) and Mount Duida

¹ Close comparison of some fifty specimens from throughout the range fails to reveal any constant local variation. Two adult birds from Argentina are slightly darker on cheeks and breast, and more brownish on the rump, and if separable, will have to be called *C. f. tucumana*. A single immature male from Aripo, Trinidad (alt. 2,000 ft. Aug. 29, 1912. S. M. Klages) agrees well with Colombian examples in corresponding plumage.

² *Columba fasciata roraimae* Chapman: Similar to *C. f. albilinea*, but rump and upper tail coverts much darker and strongly washed with the metallic olive green of the back; tail darker, with the black subterminal band more pronounced as well as more contrasting with the slate gray terminal band; under parts darker.

Two additional specimens from Roraima examined.

(Valle de los Monos, Vegas, Desfiladero, etc.); Peters, Bds. World, 3, p. 68, 1937 (range).

Columba albilineata (not of Gray) Salvin, Ibis, 1886, p. 173—Roraima.

Columba albilinea (not of Bonaparte) Salvadori, Cat. Bds. Brit. Mus., 21, p. 294, 1893—part, spec. a, b, Roraima; Chubb, Bds. Brit. Guiana, 1, p. 39, 1916—Roraima.

Range.—Subtropical zone of southern Venezuela (Mounts Duida and Roraima).

****Columba araucana* Lesson. CHILEAN PIGEON.**

Columba araucana Lesson, Voy. Coquille, Zool., 1, (2), livr. 4, pl. 40, July, 1827; idem, l.c., livr. 6, p. 706, May, 1830—Talcaguano, Bay of Concepción, Chile (location of type unrecorded); Des Murs, in Gay, Hist. Fis. Pol. Chile, Zool., 1, p. 376, 1847—Chile; Peale, U. S. Expl. Exp., 8, p. 186, 1848—Chile; Hartlaub, Naumannia, 3, p. 215, 1853—Valdivia; Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853—Valdivia; Boeck, Naumannia, 1855, p. 508—Valdivia (habits); Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 190, 1855—Chile; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 108, 1865—Chile; Selater, Proc. Zool. Soc. Lond., 1867, pp. 330, 339—Chile; Philippi, Anal. Univ. Chile, 31, p. 267, 1868—"the whole of Chile, particularly the south"; Reed, l.c., 49, p. 564, 1877—Cauquenes, Colchagua; Salvadori, Cat. Bds. Brit. Mus., 21, p. 296, 1893—Chile (Santiago, Valdivia, "Tarapacá"); Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1893—Cordillera of Aculeo, Santiago, and Ninhue (Itata), Maule; Waugh and Lataste, l.c., 4, pp. lxxxvii, clxxii, 1894—Peñaflor, Santiago, and San Alfonso (Quillota), Valparaíso; Reed, Anal. Univ. Chile, 93, p. 208, 1896—Chile; Lane, Ibis, 1897, p. 297—near Hospital (Santiago), Arauco, Calle-Calle, and Rio Bueno (Valdivia); Schalow, Zool. Jahrb., Suppl., 4, p. 671, 1898—Chile (eggs descr.); Arribáizaga, Anal. Mus. Nac. Buenos Aires, 8, p. 158, 1902—Lago General Paz, Chubut; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, 2, Orn., p. 37, 1904—"Patagonia"; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 191, 1910—Chubut (Lago General Paz), "Rio Negro," and "Tierra del Fuego"; Costes, Rev. Chil. Hist. Nat., 21, p. 161, 1917—Marga-Marga, Valparaíso (habits); Barros, l.c., 23, p. 16, 1919—Nilahue, Curicó; idem, l.c., 25, p. 170, 1921—Cordillera of Aconcagua; Paessler, Journ. Orn., 70, p. 432, 1922—Coronel, Chile (habits, nest, and eggs); Peters, Bull. Mus. Comp. Zool., 65, p. 288, 1923—about Bariloche, Lago Nahuel Huapi, Rio Negro; Housse, Rev. Chil. Hist. Nat., 28, p. 51, 1924—Isla la Mocha, Arauco; idem, l.c., 29, p. 148, 1925—San Bernardo, Santiago; Jaffuel and Pirion, l.c., 31, p. 111, 1927—Marga-Marga, Valparaíso; Bullock, l.c., 33, pp. 126, 192, 1929—Cerro del Nahuelbuta and Angol, Malleco; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 342, 1932—Chile (Coquimbo to Tres Montes); Barros, Rev. Chil. Hist. Nat., 38, p. 140, 1934—Puerto Vieja, Peuco, O'Higgins; Bullock, l.c., 39, p. 244, 1935—Isla la Mocha, Arauco; Peters, Bds. World, 3, p. 68, 1937 (range).

Columba denisea Temminck, Nouv. Rec. Pl. Col., livr. 86, pl. 502, Sep., 1830—Chile (cotypes now in Leiden Museum; cf. Schlegel, Mus. Pays-Bas, 4,

No. 35, p. 67, 1873); Lesson, Rev. Zool., 5, p. 209, 1842—Valdivia; idem, Echo du Monde Sav., 9, 2nd sér., col. 253, 1842—Valdivia.

Columba fitzroyii King, Proc. Comm. Sci. Corr. Zool. Soc. Lond., 1, "1830-31," p. 15, pub. Jan., 1831—Chiloé Island, Chile (location of type unrecorded); Darwin, Zool. Beagle, 3, Birds, p. 114, 1841—peninsula of Tres Montes and Valparaíso, Chile; Fraser, Proc. Zool. Soc. Lond., 11, p. 115, 1843—southern provinces of Chile, in winter near Santiago.

Chloroenas denisea Bonaparte, Consp. Gen. Av., 2, p. 51, 1857—Chile (descr.).

Chloroenas araucana Bullock, El Hornero, 3, p. 91, 1923—Chile (nest); Wetmore, Univ. Calif. Pub. Zool., 24, p. 431, 1926—Puesto Moreno (Lago Nahuel Huapi), Rio Negro, and Rio Corcovado, Chubut.

Columba (Chloroenas) araucana Barros, Rev. Chil. Hist. Nat., 33, p. 357, 1929—Aconcagua (breeding).

Range.—Central and southern provinces of Chile, from Coquimbo (Tambillos) to Tres Montes Peninsula, and along the eastern (Argentine) base of the Andes from Neuquén (Lago Nahuel Huapi) to western Chubut (Lago General Paz, Rio Corcovado).¹

Field Museum Collection.—1: Chile (Yumbel, Concepción, 1).

Conover Collection.—10: Argentina (San Martín de los Andes, Neuquén, 2); Chile (Papudo, Aconcagua, 1; Cabrero, Concepción, 1; Curacautin, Malleco, 1; Mafil, Valdivia, 1; Chiloé Island, 1; Quellon, Chiloé Island, 2; Porvenir, 1).

**Columba inornata inornata* Vigors. PLAIN PIGEON.

Columba inornata Vigors, Zool. Journ., 3, No. 11, p. 446, 1827—near Havana, Cuba (location of type not stated); Cory, Bds. Haiti & San Dom., p. 136, 1884—Maguá; idem, Cat. W. Ind. Bds., p. 97, 1892—part, Cuba and Hispaniola; Salvadori, Cat. Bds. Brit. Mus., 21, p. 284, 1893—part, spec. f, g, Cuba and San Domingo.

Chloroenas inornata Bonaparte, Consp. Gen. Av., 2, p. 53, 1857—part, Cuba and Santo Domingo; Cabanis, Journ. Orn., 9, p. 336, 1861—Cuba; Gundlach, l.c., 22, p. 286, 1874—Cuba (habits); Schlegel, Mus. Pays-Bas, 4, No. 35, p. 78, 1873—San Domingo.

Chloroenas inornata inornata Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 296, 1916—Cuba and Haiti (monog., full bibliog.).

¹ Birds from San Martín de los Andes, Neuquén, are in every respect similar to the Chilean ones. This pigeon is supposed to breed in southern Chile and to visit the northern provinces only in winter. Lane did not secure it north of Santiago, and his specimens listed as being from "Tarapacá" by Salvadori came actually from Arauco and Valdivia. Nor has this pigeon ever been taken in eastern Patagonia, in the Straits of Magellan, or in Tierra del Fuego. The specimens in the Museo Nacional at Buenos Aires obtained by Carlos M. Moyano in "Patagonia"—its exact origin is obviously in doubt—as recorded by Arribáizaga, signifies clearly a casual occurrence. *C. meridionalis* Peale, from the Rio Negro (January), probably refers to *C. m. maculosa*, since the Chilean Pigeon is correctly listed by that naturalist as *C. araucana*.

Columba inornata inornata Barbour, Mem. Nutt. Orn. Cl., 6, p. 79, 1923—Ciénaga, Cuba (nearly extinct); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 498, 1928—Haiti and Tortue Island; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 188, 1931—Hispaniola (crit., habits, bibliog.); Peters, Bds. World, 3, p. 66, 1937—part, Cuba and Hispaniola.

Range.—Islands of Cuba and Hispaniola, Greater Antilles.

Field Museum Collection.—3: Cuba (unspecified, 1); Haiti (Trou Caïman, 1); Dominican Republic (Maguá, Seibo, 1).

Conover Collection.—4: Cuba (Santo Tomás, Zapata Swamp, Prov. Santa Clara, 4).

****Columba inornata proxima* Todd. ISLE OF PINES PIGEON.**

Columba inornata proxima Todd, Proc. Biol. Soc. Wash., 28, p. 170, 1915—Los Indios, Isle of Pines (type in Carnegie Museum, Pittsburgh); idem, Ann. Carnegie Mus., 10, p. 225, 1916—Los Indios, Isle of Pines (crit.).

Columba inornata (not of Vigors) Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Isle of Pines; Bangs and Zappey, Amer. Natur., 39, p. 196, 1905—Isle of Pines.

Chloroenas inornata proxima Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 299, 1916—Isle of Pines (monog., bibliog.).

Columba inornata inornata Peters, Bds. World, 3, p. 66, 1937—part, Isle of Pines.

Range.—Isle of Pines, south of Cuba, Greater Antilles.

Conover Collection.—2: Isle of Pines (Los Indios, 2).

***Columba inornata exigua* (Ridgway). JAMAICAN PLAIN PIGEON.**

Chloroenas inornata exigua Ridgway, Proc. Biol. Soc. Wash., 28, p. 177, 1915—Cumberland Valley, Jamaica (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 7, p. 298, 1916—Jamaica (monog., full bibliog.); Peters, Bds. World, 3, p. 66, 1937 (range).

Columba inornata (not of Vigors) March, Proc. Acad. Nat. Sci. Phila., 1863, p. 301—Jamaica; Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Jamaica; Scott, Auk, 9, p. 122, 1892—Jamaica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 284, 1893—part, spec. a-e, Spanish Town, Jamaica.

Chloroenas inornata Selater, Proc. Zool. Soc. Lond., 1861, p. 80—Jamaica.

Range.—Island of Jamaica, Greater Antilles.

***Columba inornata wetmorei* Peters. PUERTO RICAN PLAIN PIGEON.**

Chloroenas inornata exsul (not *Columba albertisii exsul* Hartert, 1903) Ridgway, Proc. Biol. Soc. Wash., 28, p. 106, 1915—Porto Rico (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 7, p. 299, 1916—Porto Rico (monog., full bibliog.); Wetmore, Bull. U. S. Dept. Agr., 326, p. 55, 1916—Porto Rico.

Columba inornata wetmorei Peters, Bds. World, 3, p. 66, 1937—new name for *Chloroenas inornata exsul* Ridgway, preoccupied.

Chloroenas inornata (not *Columba inornata* Vigors) Gundlach, Journ. Orn., 22, p. 312, 1874—Porto Rico; idem, l.c., 26, pp. 160, 185, 1878—Lares, Porto Rico (habits); idem, Anal. Soc. Esp. Hist. Nat., 7, p. 343, 1878—Lares (habits).

Columba inornata Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Porto Rico.

Columba inornata exsul Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 393, 1927—Porto Rico; Danforth, Journ. Dept. Agric. Porto Rico, 15, p. 68, 1931—near Añasco.

Range.—Puerto Rico, Greater Antilles.

***Columba flavirostris madrensis* Nelson. TRES MARIAS PIGEON.**

Columba flavirostris madrensis Nelson, Proc. Biol. Soc. Wash., 12, p. 6, 1898—Maria Madre Island, Tres Marias Islands, Mexico (type in U. S. National Museum); idem, N. Amer. Fauna, 14, p. 35, 1899—Maria Madre and Maria Magdalena (habits); Bailey, Auk, 23, p. 385, 1906—Cleofa Island; McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 294, 1926—Maria Madre and Maria Magdalena Islands; Peters, Bds. World, 3, p. 65, 1937 (range).

Columba flavirostris (not of Wagler) Grayson, Proc. Bost. Soc. N. H., 14, p. 275, 1871—Tres Marias Islands (habits); Lawrence, Mem. Bost. Soc. N. H., 2, p. 304, 1874—part, Tres Marias Islands; Salvadori, Cat. Bds. Brit. Mus., 21, p. 285, 1893—part, spec. s', t', Tres Marias.

Columba madrensis Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 235, 1902—Tres Marias Islands.

Chloroenas flavirostris madrensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 303, 1916—Maria Madre and Cleofa Islands; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 7, 1927—Maria Madre Island.

Range.—Tres Marias Islands, off western Mexico (Maria Madre, Maria Magdalena, and Cleofa Islands).

****Columba flavirostris restricta* van Rossem.¹ SONORAN PIGEON.**

Columba flavirostris restricta van Rossem, Trans. San Diego Soc. N. H., 6, p. 197, 1930—Tecoripa, Sonora, Mexico (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles); idem, l.c., p. 248, 1931—Tecoripa, Chinobampo, Guirocoba, and Agiabampo, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 434, 1935—Alamos, Sonora; Peters, Bds. World, 3, p. 65, 1937 (range).

Columba flavirostris (not of Wagler) Lawrence, Mem. Bost. Soc. N. H., 2, p. 304, 1874—part, Mazatlan, Sinaloa, and (?)Sierra Madre, Colima; Salva-

¹ *Columba flavirostris restricta* van Rossem: Similar to the nominate race, but the greater upper wing coverts perhaps more broadly edged with white; general coloration on average paler.

If maintained, this not very satisfactory race, which by its paler plumage and greater amount of white on the wings marks an approach to the Tres Marias form, seems to extend to Nayarit, since two adults from San Blas are precisely similar to others from Alamos. Birds from Colima and Jalisco need careful study.

dori, Cat. Bds. Brit. Mus., 21, p. 285, 1893—part, spec, q', r', u'-y', Alamos, El Toro, Mazatlan, Presidio, Santiago, and San Blas; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 234, 1902—part, Sonora, Sinaloa, and Tepic localities; Bailey, Auk, 22, p. 385, 1906—San Blas, Tepic.

Columba flavirostris flavirostris Miller, Bull. Amer. Mus. N. H., 21, p. 344, 1905—Escuinapa and Los Pieses, Sinaloa (crit.).

Chloroenas flavirostris flavirostris Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 300, 1916—part, localities in Sonora, Sinaloa, Tepic, and (?) Colima.

Range.—Northwestern Mexico, from Sonora to Nayarit (southward extension undetermined).

Conover Collection.—7: Mexico, Sonora (Chinobampo, 1; Guirocoba, 6).

****Columba flavirostris flavirostris* Wagler.¹ RED-BILLED PIGEON.**

Columba flavirostris Wagler, Isis, 1831, Heft 5, May, col. 519—Mexico² (type in Munich Museum examined); Salvadori, Cat. Bds. Brit. Mus., 21, p. 285, 1893—part, spec. a-p', z'-l'', Texas, eastern Mexico, Guatemala, and El Salvador (Volcan de San Miguel); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 234, 1902—part, lower Rio Grande Valley, Texas, through eastern Mexico to Guatemala and Salvador.

Columba erythrina (Lichtenstein MS.) Ridgway, Proc. U. S. Nat. Mus., 3, p. 9, 1880—substitute name for *C. flavirostris* Wagler.

Chloroenas flavirostris Bonaparte, Consp. Gen. Av., 2, p. 52, 1857—Mexico.

Chloroenas flavirostris flavirostris Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 300, 1916—part, Rio Grande Valley south through eastern Mexico and Guatemala to Salvador and Honduras.

Columba flavirostris flavirostris Phillips, Auk, 28, p. 75, 1911—Altamira and Rio Cruz, Tamaulipas; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 387, 1928—Chivelá, Oaxaca; Griscom, Bull. Amer. Mus. N. H., 64, p. 110, 1932—near Ocos, Guatemala; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 305, 1932—Cantarranas and San Juancito, Honduras; Bent, Bull. U. S. Nat. Mus., 162, p. 365, 1932 (life hist.); Peters, Bds. World, 3, p. 65, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 185, 1938—Lake Olomega, Puerto del Triunfo, Sonsonate, Mount Cacaguatique, Lake Chanmico, and Volcan de Santa Ana, El Salvador.

Range.—Lower Rio Grande Valley, Texas, and south through eastern and southern Mexico to Guatemala, Honduras, and El Salvador.

¹ A possible synonym is *Columba solitaria* M'Call (Proc. Acad. Nat. Sci. Phila., 3, p. 233, for July, 1847—"on the Rio Grande, from Matamoros to Camargo," Mexico). The description is ambiguous, and the type has disappeared (cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 21, 1899).

² State of Vera Cruz suggested as type locality by van Rossem (Trans. San Diego Soc. N. H., 6, p. 198, 1930).

Field Museum Collection.—17: Texas (Brownsville, Cameron County, 1; Hidalgo, Hidalgo County, 1); Mexico (Tampico, Tamaulipas, 10; Achotal, Vera Cruz, 1); Guatemala (San José, Escuintla, 1); El Salvador (Sitio del Niño, Chalatenango, 2; Sonsonate, 1).

Conover Collection.—9: Texas (Brownsville, Cameron County, 2); Mexico (Hacienda San Juan, Cruz, Tamaulipas, 1; El Bonito, San Luis Potosí, 1); Honduras, Tegucigalpa (Monte Redondo, near Archaga, 3; Comayaguela, 1; La Flor, near Archaga, 1).

****Columba flavirostris minima* Carriker. COSTA RICAN RED-BILLED PIGEON.**

Columba flavirostris minima Carriker, Ann. Carnegie Mus., 6, p. 392, 1910—Ciruélas, Costa Rica (type in Carnegie Museum, Pittsburgh).

Chloroenas flavirostris (not *Columba flavirostris* Wagler) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 134, 1868—Barranca and Dota, Costa Rica; Frantz, Journ. Orn., 17, p. 370, 1869—Costa Rica.

Columba flavirostris Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Cartago, Turrialba, Alajuéla, and El Zarcero de Alajuéla, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 285, 1893—part, spec mⁿ-oⁿ, Nicaragua (La Libertad, Chontales) and Costa Rica (Dota); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 234, 1902—part, Nicaragua (Ometépe, La Libertad) and Costa Rica; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 261, 1910—Guayábo, Costa Rica.

Columba erythrina (not of Ridgway) Nutting, Proc. U. S. Nat. Mus., 6, p. 395, 1884—Ometépe, Nicaragua.

Chloroenas flavirostris minima Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 304, 1916—Nicaragua and Costa Rica (monog.).

Range.—Nicaragua and Costa Rica.

Field Museum Collection.—7: Nicaragua (San Gerónimo, Chinandega, 3; Matagalpa, Matagalpa, 1); Costa Rica (Guayábo, Cartago, 3).

Conover Collection.—5: Costa Rica (Punta Piedra, Guanacaste, 5).

****Columba cayennensis pallidicrissa* Chubb.¹ PALE-VENTED RUFOUS PIGEON.**

¹ *Columba cayennensis pallidicrissa* Chubb may be distinguished from the nominate race by the very pale, often almost whitish gray lower belly and under tail coverts, and the nearly uniform brownish gray tail. These characters are quite constant in birds from Central America and northern Colombia (lower Magdalena and Santa Marta region). This form obviously ranges along the north coast of Venezuela to Tobago. While the type of *C. c. tobagensis* has the forecrown, upper back, and wing coverts of a darker, more vinaceous chestnut tone and the crissum even whiter, three other examples from Tobago and one from Trinidad (Seelet) are not distinguishable from those of Costa Rica, and we are therefore unable to recognize the race as maintainable. Some birds from Venezuela, by rather darker under tail coverts, approach the typical race.

Columba pallidicrissa Chubb, Ibis, (9), 4, p. 60, 1910—Costa Rica (type in British Museum).

Columba rufina (not of Temminck) Jardine, Ann. Mag. Nat. Hist., 20, p. 347, 1847—Tobago; Selater and Salvin, Ibis, 1859, p. 222—Rio Dulce, Guatemala; iidem, Proc. Zool. Soc. Lond., 1864, p. 370—Panama Railroad; Léotaud, Ois. Trinidad, p. 364, 1866—Trinidad; Salvin, Proc. Zool. Soc. Lond., 1867, p. 159—Cordillera de Tolé, Veragua; idem, l.c., 1870, p. 217—Veraguas (Calovévora, Chitrá) and Chiriquí (Bugaba); Selater and Salvin, l.c., 1870, p. 838—[San Pedro], Honduras; iidem, l.c., 1879, p. 543—Medellín, Colombia; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Talamanca, Costa Rica; Cherrie, Anal. Inst. Fis.-Géogr. Mus. Nac. Costa Rica, 4, p. 146, 1893—Lagarto and Buenos Aires, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 287, 1893—part, spec. a-m, p, q, Guatemala (Rio Dulce, Cubilguitz), British Honduras, Honduras (San Pedro), Costa Rica, Chiriquí (Bugaba), Veraguas (Cordillera de Tolé, Calovévora), Panama (Lion Hill), Colombia (Medellín), and Trinidad; Cory, Auk, 10, p. 220, 1893—Tobago; Richmond, Proc. U. S. Nat. Mus., 16, p. 523, 1893—Rio Escondido, Nicaragua; Robinson, Flying Trip to Tropics, p. 153, 1895—Guaduas, Rio Magdalena, Colombia; Underwood, Ibis, 1896, p. 447—Miravalles, Costa Rica; Allen, Bull. Amer. Mus. N. H., 13, p. 129, 1900—Bonda, Colombia; Bangs, Auk, 18, p. 358, 1901—Divalá, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 236, 1902—British Honduras to Panama, Coiba Island, and Colombia; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 147, 1905—San Miguel Island, Panama; Hellmayr, Nov. Zool., 13, p. 47, 1906—Seelet, Trinidad; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 78, 1907—Los Amates, Guatemala; Bangs, Auk, 24, p. 291, 1907—Paso Real, El Pózo de Terraba, and Barránca de Puntarenas, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 393, 1910—Costa Rica (Pígres, Tenorio, Miravalles, Guápiles, Coronado de Terraba, Rio Sicsola).

Chloroenas rufina Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 194—Turbo and delta of Atrato, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1862—Lion Hill, Panama.

Columba rufina tobagensis Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 295, 1915—Tobago (type in Field Museum of Natural History); Belcher and Smooker, Ibis, 1936, p. 2—Tobago; Peters, Bds. World, 3, p. 66, 1937 (range).

Chloroenas rufina tobagensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 287, 1916—Tobago (crit.).

Chloroenas rufina pallidicrissa Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 305, 1916 (monog., full bibliog.); Rendahl, Ark. Zool., 12, No. 8, p. 12, 1919—San Juan del Norte, Nicaragua; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 33, 1922—Rio Cogollo, Encontrados, and Rio Aurare, Venezuela (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 197, 1922—Bonda, Fundación, Punto Caiman, Mamatoco, Dibulla, and Gaira, Santa Marta, Colombia.

Columba rufina pallidicrissa Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Almirante and Chiriquicito, Panama; Peters, Bull. Mus. Comp. Zool., 69, p. 406, 1929—Lancetilla and Progreso, Honduras; idem,

l.c., 71, p. 298, 1931—Changuinola, Almirante, Western River, Shepherd Island, and Gerchow Key, Panama; Darlington, l.c., p. 379, 1931—Ciénaga, Magdalena, Colombia; Griscom, l.c., 72, p. 322, 1932—Permé, eastern Panama; idem, Bull. Amer. Mus. N. H., 64, p. 110, 1932—Guatemala; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 208, 1932—Bluefields, Nicaragua; Griscom, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Panama; Carriker and Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 414, 1935—Quiriguá, Guatemala; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Remate, Petén, Guatemala; Peters, Bds. World, 3, p. 66, 1937 (range).

Columba rufina subsp.? Roberts, Trop. Agric., 11, p. 92, 1934—Caroni Swamp, Trinidad.

Columba rufina rufina Belcher and Smooker, Ibis, 1936, p. 2.—Caroni Marshes and Aripo, Trinidad (nest and eggs descr.).

Range.—Southeastern Mexico (Orizaba, Vera Cruz; Montecristo, Tabasco; Palenque, Chiapas) and southwards through eastern Guatemala, British Honduras, Honduras, Nicaragua, and Costa Rica to Panama and northern Colombia (Magdalena Valley and Santa Marta region), east along the north coast of Venezuela to the islands of Trinidad and Tobago.

Field Museum Collection.—12: Guatemala (Los Amates, Izabal, 2); Costa Rica (Limón, Limón, 2; El Pózo, Puntarenas, 1); Panama (Agua Dulce, 2); West Indies (Tobago, 1); Venezuela (Encontrados, Zulía, 2; Rio Aurare, 1; Pedernales, Amacuro, 1).

Conover Collection.—20: Honduras (San José, Santa Barbara, 1; Catacamas, Olancho, 1); Costa Rica (Guápiles, 1; El Pózo, Puntarenas, 3; Las Agujas, 1; Puerto Jiménez, Oso Peninsula, 3); Panama (Bocas del Toro, 6); Colombia (Rio Frio, Santa Marta, 2); Venezuela (Rio Cogollo, Périja, 2).

****Columba cayennensis cayennensis* Bonnaterre. RUFIOUS PIGEON.**

Columba cayennensis Bonnaterre, Tabl. Enc. Méth., Orn., 1, livr. 51, p. 234, 1792—based on “Le Pigeon Ramier de Cayenne” Holandre, Abrégé d’Hist. Nat., 2, p. 214, 1790; Cayenne;¹ Todd, Proc. Biol. Soc. Wash., 50, p. 186 (footnote 8), 1937 (crit.).

Columba rufina Temminck, in Temminck and Knip, Les Pigeons, 1, Colombes, p. 59, pl. 24, 1810—“la Guyane Française” (type in Paris Museum); idem, Hist. Nat. Fig. Gall., 3, pp. 245, 467, 1813—Guiana; Bonaparte, Atti Sesta Riun. Scienz. Ital., Milano, 1844, p. 406, 1845—“Santa Fé de Bogotá”; Schomburgk, Reisen Brit. Guiana, 1, pp. 340, 394, 1847—Essequibo River (below mouth of Rupununi) and Pirara; idem, l.c., 2, p. 491,

¹ Although no mention is made of the bronze green pileum, the description is unmistakable, and what the author says about the coloration of the throat and cheeks can only apply to *C. rufina* to the exclusion of any other neotropical pigeon.

- 1848—sandhills of the Demerara; Cabanis, in Schomburgk, l.c., 3, p. 473, 1849—British Guiana up to 3,000 ft.; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 591—Mexiana Island, Brazil; Salvin, Ibis, 1886, p. 173—Bartica Grove and Roraima, British Guiana; Taczanowski, Orn. Pér., 3, p. 236, 1886—part, Cayenne; Salvadori, Cat. Bds. Brit. Mus., 21, p. 287, 1893—part, spec. r-y, a', British Guiana (Bartica Grove, Roraima), Cayenne, and Mexiana; Goeldi, Ibis, 1897, p. 160—Counany, northern Pará; Berlepsch and Hartert, Nov. Zool., 9, p. 117, 1902—Altagracia, Caicara, and Maipures, Rio Orinoco, Venezuela; Berlepsch, l.c., 15, p. 294, 1908—Cayenne and Isle le Père, French Guiana; Hagmann, Zool. Jahrb. (Syst.), 26, p. 41, 1907—Mexiana; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 191, 1913—Corosal and Vagre River, Orinoco Delta; Sneath, Bol. Mus. Goeldi, 8, p. 62, 1914—part, Marajó (Pindobal, Pacoval, São Natal), Mexiana, and Rio Jamundá (Faro); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 351, 1916—Orinoco River (nest and eggs descr.); Chubb, Bds. Brit. Guiana, 1, p. 38, 1916—Takutú Mountains, Roraima, Abary River, Bartica, Quonga, and Georgetown; Chapman, Bull. Amer. Mus. N. H., 36, p. 202, 1917—part, Villavicencio, Colombia.
- Chloroenas rufigula* Sclater, Proc. Zool. Soc. Lond., 25, p. 19, 1857—Bogotá; Pelzeln, Orn. Bras., 3, p. 275, 1870—Barcellos (Rio Negro), Manáos, and Forte do Rio Branco, Brazil (spec. examined).
- Melopelia plumbeiceps* Lawrence, Ibis, (4), 4, p. 238, 1880—Guiana (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York; =young; cf. Salvin and Godman, Ibis, 1883, p. 212).
- Columba rufigula rufigula* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 121, 1912—Mexiana (crit.); Brodkorb, Occ. Pap., Mus. Zool. Univ. Mich., 349, p. 2, 1937—Caviana; Peters, Bds. World, 3, p. 66, 1937 (range).
- Columba rufigula andersoni* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 294, 1915—Serra da Lua, near Bôa Vista, Rio Branco, Brazil (type in Field Museum of Natural History); Chapman, Bull. Amer. Mus. N. H., 63, p. 62, 1932—Roraima (Arabupu), Rio Branco (Caracarahy), and Rio Surumú (Frechal); Peters, Bds. World, 3, p. 67, 1937 (range).
- Chloroenas rufigula rufigula* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 44, 1918—Paramaribo, Surinam.

Range.—From the north bank of the lower Amazon and islands of Marajó, Caviana, and Mexiana north through the Guianas to the Orinoco basin, Venezuela, west to the Rio Negro and the eastern base of the east Colombian and Ecuadorian Andes.¹

¹ Comparison of two adults from French Guiana and three from British Guiana (Bartica Grove) with others from the Rio Branco (*andersoni*), Marajó, Manáos, and Barcellos fails to reveal any constant difference. Typical *rufigula*, in its color characters, stands just between *pallidicrissa* and *sylvestris*, as may be expected from its intermediate geographical range. The tail is not so uniform as in *pallidicrissa*, nor so distinctly bicolored as in *sylvestris*, but shows in its sub-terminal portion more or less marked suggestions of a dusky area. The color of the under tail coverts varies from the light neutral gray of *sylvestris* to a paler gray that comes very close to the tone prevalent in certain dark-vented individuals of *pallidicrissa*. Birds from the Orinoco Valley tend even more in the direction

Field Museum Collection.—4: British Guiana (Abary River, 2); Brazil, Amazonas (Serra da Lua, near Bôa Vista, Rio Branco, 2).

Conover Collection.—8: Brazil (Obidos, Pará, 1; Lago Cuipeua, Pará, 4; Boca de Channel Piava, 1); Ecuador (Suno, Loreto, 1; Rio Napo, 1).

****Columba cayennensis tamboensis* Conover.¹ TAMBO RUFOUS PIGEON.**

Columba cayennensis tamboensis Conover, Field Mus. Nat. Hist., Zool. Ser., 20, p. 477, 1938—El Tambo, Cauca, Colombia (type in Conover Collection, Field Museum of Natural History).

Columba rufina (not of Temminck) Goodfellow, Ibis, 1902, p. 227—part, "Popayán," Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 202, 1917—San Antonio, Cali, below Miraflores, Rio Frio (Cauca), and Banco (Magdalena), Colombia.

Range.—Tropical zone of western Colombia (Cauca Valley; probably also Magdalena Valley).

Conover Collection.—9: Colombia (Chisquio, El Tambo, 1; El Tambo, Cauca, 3; Munchique, El Tambo, Cauca, 4; Rio Patia, Cauca, 1).

****Columba cayennensis occidentalis* Sztolcman.² WESTERN RUFOUS PIGEON.**

Columba rufina occidentalis Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 201, Dec. 31, 1926—Yaguachi, western Ecuador (type in Warsaw Museum); Peters, Bds. World, 3, p. 66, 1937 (range).

of *pallidicrissa*, though as a whole they appear to be nearer Guianan specimens. A single Bogotá skin can be matched in every particular by one of our Cayenne skins, suggesting an extension of range for *rufina* to the eastern foot of the east Colombian Andes.

Additional material examined.—French Guiana: Cayenne, 2.—British Guiana: Bartica Grove, 3.—Brazil: Forte do Rio Branco, 1; Manáos, 1; Barcellos, Rio Negro, 1; Mexiana, 1; São Natal, Marajó, 2.—Venezuela, Rio Orinoco: Altagracia, 6.—Colombia: "Bogotá," 1.

¹ *Columba cayennensis tamboensis* Conover: Most closely resembling *C. c. sylvestris*, but with a nearly uniform tail; rufous area on upper parts of males more extensive, involving most of the scapular region, lesser, and median wing coverts; rufous of breast more extended abdominally; ventral region and under wing coverts on average paler. Much darker than *pallidicrissa* and *occidentalis*, particularly on cheeks, rump, abdomen, and under the wings; with the rufous area above and below more extensive, and the occiput greener, less amethystine. A single specimen from El Banco, Magdalena Valley, is paler than the Cauca series, thus verging toward *pallidicrissa*.

Additional material examined.—Colombia: San Antonio, Cauca, 2; Cali, 1; Rio Frio, Cauca, 1; Banco, Magdalena, 1.

² *Columba cayennensis occidentalis* Sztolcman closely resembles *C. c. pallidicrissa* in the nearly uniform brownish gray tail, but the lower abdomen and under tail coverts are darker gray (more like typical *rufina*), and the forehead is rather darker vinaceous.

Two additional specimens (from Yaguachi and Vines) examined.

Columba rufina (not of Temminck) Sclater, Proc. Zool. Soc. Lond., 28, p. 289, 1860—Babahoyo, Ecuador; Taczanowski and Berlepsch, l.c., 1885, p. 110—Yaguachi, Ecuador; Salvadori, Cat. Bds. Brit. Mus., 21, p. 287, 1893—part, spec. o, Balzar, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 34, 1900—Vinces, Ecuador; Goodfellow, Ibis, 1902, p. 227—part, "Chillo Valley, near Quito," Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 162, 1926—Chone and Daule, Ecuador.

Range.—Tropical zone of western Ecuador.

Conover Collection.—5: Ecuador (Rio San Antonio, Prov. de los Rios, 3; La Palma, Prov. de los Rios, 2).

****Columba cayennensis sylvestris* Vieillot. SOUTHERN RUFOUS PIGEON.**

Columba melanoptera (not of Molina, 1782) Temminck, Hist. Nat. Fig. Gall., 3, pp. 359, 488, 1812—based on "Paloma montés" Azara, No. 319; Paraguay.

Columba sylvestris Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 366, 1818—based on "Paloma montés" Azara, No. 319, Paraguay; Wagler, Syst. Av., 1, fol. 16, sp. 54, 1827—Paraguay (ex Azara); Chubb, Ibis, 1910, p. 59—Paraguay (Sapucay, Villa Rica) and Peru (Guayabamba); Grant, Ibis, 1911, p. 459—Curuzú-Chica, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 352, 1913—Tucumán, Misiones, and Chaco (Ocampo).

Chloroenas sylvestris Bonaparte, Consp. Gen. Av., 2, p. 52, 1857—Paraguay.

Columba rufina (not of Temminck) Wied, Reise Bras., 1, p. 301 (8vo ed., p. 298), 1820—Transozo, Bahia; idem, l.c., 2, p. 341 (8vo ed., p. 340), 1821—Isla Cachoeirinha, Rio Belmonte, Bahia; idem, Beitr. Naturg. Bras., 4, (2), p. 453, 1833—Rio de Janeiro, Rio Mucuri, Alcobaça, Peruhype, Caravellas, and Belmonte, eastern Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 198—Rio Ucayali, Peru; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 59—Lagõa Santa, Minas Geraes; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 306—upper Ucayali and Chamicuros, Peru; idem, l.c., 1876, p. 17—Maranura, Urubamba, Peru; Allen, Bull. Essex Inst., 8, p. 82, 1876—Rhomes (near Santarém), Brazil; Forbes, Ibis, 1881, p. 356—Parahyba, Brazil; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 48—Chirimoto, Peru; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 176, 1885—Taquara do Mundo Novo, Rio Grande do Sul; Taczanowski, Orn. Pér., 3, p. 236, 1886—Peru (upper Ucayali, Chamicuros, Chirimoto, Maranura); Berlepsch, Journ. Orn., 37, p. 319, 1889—Yarina Cocha, Rio Ucayali, Peru; Riker and Chapman, Auk, 8, p. 162, 1891—Santarém; Boucard and Berlepsch, The Humming Bird, 2, p. 41, 1892—"Porto Real," Brazil; Salvadori, Cat. Bds. Brit. Mus., 21, p. 287, 1893—part, spec. z, b'-e', Pará, Ytararé, "Pelotas," and Chapada, Brazil; Allen, Bull. Amer. Mus. N. H., 5, p. 148, 1893—Chapada, Matto Grosso; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 23, 1895—Colonia Risso, Paraguay; idem, l.c., 12, No. 292, p. 32, 1897—Caiza, Tarija, Bolivia; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 145, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 398, 1899—São Paulo; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 43—La Merced, Chanchamayo, Peru; Lillo, Anal. Mus. Nac.

Buenos Aires, 8, p. 216, 1902—El Bosque, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 70, 1905—vicinity of Tucumán; Berlepsch and Stolzmann, Ornith., 13, p. 100, 1906—Idma, Urubamba, Peru; Ihering, Cat. Faun. Braz., 1, p. 19, 1907—São Paulo (Iguapé) and Paraná (Ourinho); Snethlage, Journ. Ornith., 56, pp. 516, 538, 1908—Rio Tapajóz (Goyana) and Rio Tocantins (Arumatheua); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 86, 1910—Bahia (Caesara das Cabras, Rio Grande; Fazenda Taboá, Rio Preto); Bertoni, Anal. Soc. Cient. Arg., 75, p. 68, 1913—Misiones and Corrientes; idem, Faun. Parag., p. 36, 1914—Alto Paraná, Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 62, 1914—part, Benevides, Rio Tocantins (Arumatheua), and Rio Tapajóz (Goyana); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Pará, Brazil.

Chloroenas rufina Burmeister, Syst. Uebers. Th. Bras., 3, p. 29, 1856—Lagôa Santa, Minas Geraes; Pelzeln, Orn. Bras., 3, p. 275, 1870—part, São Paulo (Taipa, Porto do Jacarehy, Ypanemá, Itararé, Tejuco, Borda do Matto) and Paraná (Pitangui, Rio do Boraxudo).

Columba rufina sylvestris Hellmayr, Nov. Zool., 15, p. 91, 1908—Goyás City, Goyás; idem, l.c., 17, p. 415, 1910—Humaytá, Rio Madeira; Hartert and Venturi, l.c., 16, p. 261, 1909—Misiones (Posadas), Tucumán, and Santa Fé (Ocampo); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 191, 409, 1910—Misiones, Santa Fé, Tucumán, and La Rioja; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 459, 492, 1912—Paraná (Vera Guarany, Rio dos Indios); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 463, 1925—Piahy (habits); Sztoleman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 115, 1926—Fazenda Ferreira, Paraná; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 463, 1929—Tranqueira, Maranhão; Dinelli, El Hornero, 4, p. 276, 1929—Tucumán (visitant); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 85, 1930—Formosa (San José) and Bolivia (Villa Montes, Tarija); Naumburg, Bull. Amer. Mus. N. H., 60, p. 66, 1930—Agua Blanca de Corumbá, Matto Grosso; Pinto, Rev. Mus. Paul., 17, (2), p. 22, 1932—Tres Lagôas and Sant' Anna do Paranahyba, Matto Grosso; idem, l.c., 19, p. 61, 1935—Madre de Deus and Corupéba, Bahia; idem, l.c., 20, p. 37, 1936—Rio das Almas, Goyás; Peters, Bds. World, 3, p. 67, 1937 (range).

Columba rufina rufina Chapman, Bull. U. S. Nat. Mus., 117, p. 45, 1921—Santa Ana and Idma, Peru.

Chloroenas rufina sylvestris Giacomelli, El Hornero, 3, p. 81, 1923—La Rioja.

Range.—Brazil south of the Amazon, but crossing the river at Manacapurú, south to Rio Grande do Sul; Paraguay; northern Argentina (Misiones, Santa Fé, Formosa, La Rioja, Tucumán); southeastern Bolivia (Caiza and Villa Montes, Tarija); eastern Peru.¹

¹ Two adults from Pará have the strongly bicolored tail of southern individuals, but somewhat paler gray lower abdomen and under tail coverts. Three specimens from eastern Peru cannot be distinguished from the Brazilian average. The blackish basal coloration of the tail is most strongly marked in specimens from Argentina, Paraguay, and southern Brazil, and becomes slightly lessened as one proceeds to the northern part of the range.

Additional material examined.—Argentina; Posadas, Misiones, 1; Tucumán, 1; San José, Formosa, 1.—Brazil: Blumenau, Santa Catharina, 1; Pitangui, Paraná, 1; Taipa, São Paulo, 2; Itararé, São Paulo, 3; Ypanemá, São Paulo, 2;

Field Museum Collection.—6: Brazil (Mãcaco Secco, Bahia, 2; São Marcello, Bahia, 1; Vaccaria, Matto Grosso, 2); Peru (Yurimaguas, Loreto, 1).

Conover Collection.—50: Brazil (Buenos Aires, Rio Acará, Pará, 3; Serraria Cabral, Rio Acará, Pará, 3; Boim, Rio Tapajóz, Pará, 6; Caxiricatuba, Rio Tapajóz, Pará, 5; Canutama, Rio Purús, Amazonas, 1; Rio Manacapurú, Amazonas, 7; Veadeiros, Goyáz, 1; Tranqueira, Maranhão, 3; Fazenda Cayoá, São Paulo, 2; Vaccaria, Matto Grosso, 3); Paraguay (Villa Rica, 2; Horqueta, 2; 265 km. west of Puerto Casado, 4; Capitan Bado, Cerro Amambay, 4); Bolivia, Santa Cruz (Buenavista, 2); Argentina (Eldorado, Misiones, 2).

****Columba oenops* Salvin.¹ SALVIN'S PIGEON.**

Columba oenops Salvin, Nov. Zool., 2, p. 20, 1895—Viña (Huamachuco) and Malca (Cajabamba), Rio Marañón, Peru (type in British Museum); Peters, Bds. World, 3, p. 66, 1937 (range).

Columba vina Godman, Bull. Brit. Orn. Cl., 10, p. xxvii, 1899—Viña (Huamachuco), Peru (type in British Museum).

Chloroenas oenops Bangs and Noble, Auk, 35, p. 446, 1918—Perico, near Bellavista, Rio Marañón, Peru.

Range.—Subtropical zone of the upper Marañón Valley, northern Peru (Bellavista, Viña, Malca, Balsas),

Field Museum Collection.—1: Peru (Balsas, 1).

****Columba nigrirostris* Sclater. SHORT-BILLED PIGEON.**

Columba nigrirostris Sclater, Proc. Zool. Soc. Lond., 27, p. 390, 1859—Oaxaca, Mexico (type now in British Museum);² Sclater and Salvin, l.c., 1864,

Borda do Matto, São Paulo, 2; Agua Suja, near Bagagem, Minas Geraes, 2; Fazenda Tabôa, Rio Preto, Bahia, 1; Caesara das Cabras, Rio Grande, Bahia, 1; Humaytá, Rio Madeira, 1; Victoria, Rio Xingú, 1; Pará, 2.—Peru: Yarina Cocha, Rio Ucayali, 1; La Merced, Chanchamayo, 1; Idma, Urubamba, 1.

¹ *Columba oenops* Salvin, while superficially resembling *C. cayennensis*, differs nevertheless very markedly by yellow bill; uniform vinous pileum, hind neck, and nape (whereas in the allied species the hind crown and hind neck, in abrupt contrast to the vinaceous forecrown, are bronze green with brassy or coppery sheen, the nape and foreback strongly glossed with amethystine); vinous instead of gray sides of head and throat; darker gray of rump and posterior under parts; much darker, opaque blackish tail; conspicuous white edges to the outer greater upper wing coverts, etc. The tone of the vinous parts of the plumage, too, is different, though hard to describe. Females may be separated by their duller, dingier coloration. The hind crown is suffused with grayish; the mantle predominantly sepia brown, here and there tinged with vinous brown; the tertials sepia brown instead of vinous brown. Wing, 200–210, (female) 190–200; tail, 135–145, (female) 125–135; bill, 14½–17.

Additional material examined.—Peru: Viña, Rio Marañón, 17.

² Spec. a from "S. Mexico, April (Boucard)" ex coll. Salvin-Godman, though not designated as such, is the type.

p. 370—Panama Railroad; Salvin, Ibis, 1865, p. 195 (not on the Pacific side of Guatemala); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 280—Bluefields River, Nicaragua; Salvin, l.c., 1870, p. 217—Bugaba, Chiriquí (crit.); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Talamanca, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 10, p. 594, 1888—Segovia River, Honduras; Richmond, l.c., 16, p. 522, 1893—Rio Escondido, Nicaragua (habits); Salvadori, Cat. Bds. Brit. Mus., 21, p. 322, 1893—Mexico, Guatemala (Choctum), British Honduras (near Belize), Costa Rica (Turrialba), and Panama (Bugaba, Lion Hill); Bangs, Auk, 18, p. 358, 1901—Divalá, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 239, 1902—Oaxaca (La Lana) to the Isthmus of Panama; Bangs, Auk, 24, p. 292, 1907—Boruca, El Pózo, and Paso Real de Térraba, Costa Rica; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 79, 1907—Puerto Barrios and Los Amates, Guatemala; Ferry, l.c., p. 261, 1910—Guayábo, Costa Rica; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 472, 1927—Presidio, Vera Cruz, Mexico; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Almirante, Panama; Austin, Bull. Mus. Comp. Zool., 69, p. 370, 1929—Augustine, British Honduras; Peters, l.c., 71, p. 298, 1931—Almirante and Cricamola, Panama; Griscom, Bull. Amer. Mus. N. H., 64, p. 111, 1932—Secanquim, Finca Sepacuite, and Chimoxan, Guatemala; idem, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Panama; Van Tyne, Misc. Pub., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Mancané and Remate, Petén, Guatemala; Peters, Bds. World, 3, p. 71, 1937 (range).

Chloroenas vinacea (not *Columba vinacea* Gmelin, 1789) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1862—Isthmus of Panama.

Columba —? Sclater and Salvin, Ibis, 1860, p. 402—Guatemala; Salvin, Ibis, 1866, p. 266 (= *nigrirostris*).

Chloroenas nigrirostris Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 135, 1868—Costa Rica; Frantzius, Journ. Orn., 17, p. 371, 1869—Sarapiquí, Costa Rica; Schlegel, Mus. Pays-Bas, 4, No. 35, p. 78, 1873—Guatemala.¹

Columba nigrirostris brunneicauda Carriker, Ann. Carnegie Mus., 6, p. 395, 1910—Guápiles, Costa Rica (type in Carnegie Museum, Pittsburgh).

Columba nigrirostris nigrirostris Peters, Auk, 30, p. 372, 1913—thirty miles north of Camp Mengel, Quintana Roo, Mexico; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 208, 1932—Eden and Santa Rosita, Nicaragua.

Ooenas nigrirostris Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 328, 1916 (monog., bibliog.); Rendahl, Ark. Zool., 12, No. 8, p. 12, 1919—Costa Rica (Bitéi, Talamanca; Caño Secco) and Nicaragua (San Juan del Norte).

Range.—Southeastern Mexico, in states of Vera Cruz (Buena Vista, Presidio), Oaxaca (La Lana), and Quintana Roo (thirty miles north of Camp Mengel), and southwards through British Honduras, eastern Guatemala, Honduras (Rio Roman, Rio Segovia), Nicaragua, and Costa Rica to eastern Panama.²

¹ Erroneously given as "one of the types."

² Specimens from Costa Rica (*brunneicauda*) and Panama are not satisfactorily separable.

Field Museum Collection.—10: British Honduras (Stann Creek, Twelve Mile Station, 1); Guatemala, Izabal (Puerto Barrios, 1; Los Amates, 2); Costa Rica (Guayábo, Cartago, 1; La Iberia, 1; Limón, Limón, 1; Lagarto, Puntarenas, 2); Panama, Veraguas (Boquete de Chitrá, 1).

Conover Collection.—23: Guatemala (unspecified, 1); Costa Rica (Puerto Jiménez, Puntarenas, 1; El Pózo, Río Térraba, Puntarenas, 2; Limón, Limón, 1; Guácimo, near Volcan Turrialba, 1); Panama (Cricamola, Bocas del Toro, 7; Permé, Darien, 3; Port Obaldia, Darien, 7).

****Columba goodsoni* Hartert.¹ GOODSON'S PIGEON.**

Columba goodsoni Hartert, Bull. Brit. Orn. Cl., 12, p. 42, 1902—San Javier, Pambilár, and Carondelet, Prov. Esmeraldas, Ecuador (type, from Pambilár, in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 34, p. 7, 1927); idem, Nov. Zool., 9, p. 602, 1902—Pambilár, San Javier, Carondelet, Río "Japáyo" [=Sapáyo], and Río Cayápas, Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1205—Noanamá, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 203, 1917—Buenaventura and Barbacoas (Nariño), Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 17, 1922—Gualea, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 162, 1926—Esmeraldas, Ecuador; Todd, Proc. Biol. Soc. Wash., 50, p. 189, 1937—Malagita, Chocó (crit.); Peters, Bds. World, 3, p. 71, 1937 (range).

Range.—Tropical zone of Pacific Colombia (Noanamá, Río San Juan; Malagita and Buenaventura, Chocó; Barbacoas, Nariño) and northwestern Ecuador (Prov. Esmeraldas; Achotal, Prov. Imbabura; Gualea, Prov. Pichincha).

Field Museum Collection.—2: Ecuador (Telembi, Esmeraldas, 2).

Conover Collection.—1: Ecuador (Achotal, Imbabura, 1).

***Columba chiriquensis* (Ridgway).² CHIRIQUI PIGEON.**

¹ *Columba goodsoni* Hartert, though allied to *C. nigrirostris*, differs from it by having the top and sides of the head clear plumbeous gray; the throat light pearl-gray instead of vinous; the foreneck and breast much paler, plumbeous washed with lilac; the abdomen dull vinous-brown. The under wing coverts and a broad margin to the inner webs of the remiges are bright cinnamon-rufous. Wing, 148–153; tail, 110–115; bill, 13½–15.

Additional material examined.—Colombia: Noanamá, 1.—Ecuador, Prov. Esmeraldas: Río Sapáyo, 1; Telembi (alt. 300 ft.), 2.

² *Columba chiriquensis* (Ridgway), known from the unique type, is said to be allied to *C. nigrirostris* and *C. purpureotincta*. The fact that no other specimen has ever been obtained in a region so well explored as Chiriquí is apt to cast serious doubts on the correctness of the locality, unless the type be a "freak" or a hybrid. The junior author finds the type to be exactly like certain Guianan specimens of *purpureotincta* except for its larger bill and the lack of rufous on the inner webs of the primaries.

Oenoenas chiriquensis Ridgway, Proc. Biol. Soc. Wash., 28, p. 139, 1915—Chiriquí, Panama (type in U. S. National Museum examined); idem, Bull. U. S. Nat. Mus., 50, Part 7, p. 332, 1916—Chiriquí (monog.).

Columba chiriquensis Griscom, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Chiriquí; Peters, Bds. World, 3, p. 73, 1937.

Range.—Western Panama (Chiriquí).

****Columba subvinacea subvinacea* (Lawrence). RUDDY PIGEON.**

Chloroenas subvinacea Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 135, 1868—Dota, Costa Rica (type in U. S. National Museum); Salvin, Ibis, 1869, p. 317—Costa Rica (crit.); Frantz, Journ. Orn., 17, p. 371, 1869—San Antonio, Costa Rica; Rowley, Orn. Misc., 3, p. 75, pl. 91, 1878—Volcan de Irazú, Costa Rica.

Columba subvinacea Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Calovévora, Veraguas; Boucard, l.c., 1878, p. 43—La Candelaria, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Las Trojas and Naránjo de Cartago, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 326, 1893—part, spec. a-e, Costa Rica (Barránca, San José) and Panama (Volcan de Chiriquí; Calovévora, Veragua); Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 145, 1893—Lagarto, Costa Rica; idem, "Expl. Zool., Rio Naránjo, p. 7, 1893"—Pózo del Pital, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 23, 1902—Boquete, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 239, 1902—part, Costa Rica and Panama (Boquete, Volcan de Chiriquí, Calovévora); Carriker, Ann. Carnegie Mus., 6, p. 396, 1910—Costa Rica (Guayábo, Coliblanco, Bonilla, Las Trojas, Turrialba, Sarchí, La Estrella de Cartago, Azahár de Cartago, Guácimo, Cachí, Ujurrás de Térraba).

Oenoenas subvinacea subvinacea Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 326, 1916—"Guatemala (Puerto Barrios)," Costa Rica, and Panama (excl. of Punta de Sabana).

Columba subvinacea subvinacea Griscom, Bull. Amer. Mus. N. H., 64, p. 111, 1932—"Puerto Barrios, Guatemala" (record shown to be erroneous); idem, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Chiriquí and Veraguas; Peters, Bds. World, 3, p. 72, 1937 (range).

Range.—Tropical zone of Costa Rica and western Panama, east to Veraguas.¹

Conover Collection.—2: Costa Rica (Rio Jesús María, 1); Panama (Boquete, Chiriquí, 1).

****Columba subvinacea berlepschi* Hartert.² BERLEPSCH'S RUDDY PIGEON.**

¹ Two birds from Chiriquí are slightly redder above than a Costa Rican series.

Additional material examined.—Costa Rica: Guayábo, 1; Cariblanco de Sarapiquí, 1; Navarrito, 1; Cachí, 5; La Estrella, Cartago, 1; Ujurrás de Térraba, 1; Azahár, Cartago, 1; Barránca, 2; Faldas de Póas, 1.—Panama: Volcan de Chiriquí, 1; Calovévora, Veraguas, 1.

² *Columba subvinacea berlepschi* Hartert: Similar to the nominate race, but with much shorter wings and tail, and conspicuously shorter bill; coloration some-

Columba subvinacea berlepschi Hartert, Nov. Zool., 5, p. 504, 1898—Paramba, Imbabura, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York); idem, l.c., 9, p. 602, 1902—Paramba, San Javier, and Pambilár, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 206, 1917—part, Buenaventura, Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 17, 1922—Nanegal and Gualea, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 164, 1926—Esmeraldas, Gualea, Rio de Oro, Naránjo, Bucay, and Alamor, Ecuador; (?)Griscom, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Mount Tacarcuna, Darien; Peters, Bds. World, 3, p. 72, 1937 (range).

Chloroenas rufina (not *Columba rufina* Temminck) Sclater, Proc. Zool. Soc. Lond., 27, p. 147, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 97, 1860 -- Nanegal, Ecuador.

Columba vinacea (not of Temminck) Sclater, Proc. Zool. Soc. Lond., 28, p. 289, 1860—Babahoyo, Ecuador; Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 277, 1890—Nanegal and Babahoyo, Ecuador.

Columba subvinacea (not *Chloroenas subvinacea* Lawrence) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 574—Chimbo, Ecuador; Taczanowski, Orn. Pér., 3, p. 236, 1886—part, Chimbo; Salvadori, Cat. Bds. Brit. Mus., 21, p. 326, 1893—part, spec. i-n, Ecuador (Pallatanga, Monji, Balzar, "Quito"); (?)idem and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 9, 1899—Punta de Sabana, Rio Tuyra, Darien; idem, l.c., 15, No. 368, p. 34, 1900—Rio Peripa, Ecuador; Goodfellow, Ibis, 1902, p. 227—part, Santo Domingo, Ecuador.

Range.—Tropical zone of (?)eastern Panama (from the Rio Tuyra eastwards [fide Griscom]), western Colombia (Buenaventura), and western Ecuador south to Prov. Loja (Alamor).

Field Museum Collection.—1: Ecuador (Pambilár, Prov. Esmeraldas, 1).

Conover Collection.—10: Ecuador (Santo Domingo, 1; Santo Domingo de los Colorados, 2; Rio Blanco, Pichincha, 1; Rio Blanco, Esmeraldas, 5; Milpe Mindo, Rio Blanco, Pichincha, 1).

***Columba subvinacea anolaimae* Chubb.¹ ANOLAIMA RUDDY PIGEON.**

what duller; the under parts paler vinaceous, posteriorly with a grayish vinous (instead of cinnamonous) hue; rump more strongly glossed with purplish. Wing, 142-155; tail, 120-135; bill, 11-12.

We doubt if this form really ranges as far north as Darien, as has been claimed by Griscom.

Additional material examined.—Ecuador: Paramba, 1; Pambilár, 3; Rio Sapáyo, 1; Pallatanga, 1; Balzar, 1.

¹ *Columba subvinacea anolaimae* Chubb differs from *C. s. berlepschi* by markedly larger size; deeper vinaceous under parts, head, and hind neck; somewhat less reddish dorsal surface, the back, scapulars, and wing coverts being more or less mixed with olive. Wing, 160-175; tail, 130-145.

This is the race for which Berlepsch and Leverkühn's term *bogotensis* has been misapplied by Chapman. The type of *C. anolaimae*, a skin of the ordinary

Columba anolaimae Chubb, Bull. Brit. Orn. Cl., 38, p. 17, 1917—Anolaima, west slope of Eastern Cordillera, Colombia (type in British Museum examined).

Columba vinacea (not of Temminck) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 543—Remedios, Rio Ité, Antioquia, Colombia (in part).

Columba subvinacea (not *Chloroenas subvinacea* Lawrence) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 543—Remedios; Salvadori, Cat. Bds. Brit. Mus., 21, p. 326, 1893—part, spec. f, g, Remedios and “New Granada.”

Columba plumbea (not of Vieillot) Salvadori, Cat. Bds. Brit. Mus., 21, p. 323, 1893—part, spec. p-u, Colombia (Bogotá, Anolaima, Remedios).

Columba subvinacea bogotensis (not *Chloroenas plumbea* subsp. *bogotensis* Berlepsch and Leverkühn) Chapman, Bull. Amer. Mus. N. H., 36, p. 204, 1917—part, San Antonio and above Nóvita (western Andes), La Frijolera (Cauca), Salento (central Andes), La Candela (head of Magdalena Valley), and (?) La Morelia (Caquetá), Colombia (crit.); Todd, Proc. Biol. Soc. Wash., 50, p. 189, 1937—part, Colombia (Las Ventanas); Peters, Bds. World, 3, p. 72, 1937—part, Colombia.

Oenoenas bogotensis Ridgway, Bull. U. S. Nat. Mus., 50, part 7, p. 325, 1916—part, Colombia (diag.).

Range.—Tropical and Subtropical zones of Colombia (San Antonio and above Nóvita, western Andes; La Frijolera, lower Cauca; Salento, west slope of central Andes; Remedios, Rio Ité, Cauca; La Candela, head of Magdalena Valley; Anolaima; Bogotá region; (?) La Morelia, Caquetá).¹

****Columba subvinacea recondita* Todd.² AMAZONIAN RUDDY PIGEON.**

“Bogotá” preparation, though marked “Anolaima, west slope of Eastern Cordillera (alt. 5,000 ft.),” is a normal individual of the present form with rather a decided olive tone on wing coverts and scapulars. The bill is much damaged, but viewed from below it agrees in shape and length with other Colombian specimens. Birds from the western Andes (San Antonio; above Nóvita) are smaller (wing, 155–160), and approach *subvinacea* in coloration.

Material examined.—Colombia: La Candela, Huila, 3; El Roble, Quindio Andes, 1; Salento, West Quindio Andes, 1; La Frijolera, Antioquia, 2; Las Ventanas, Santander, 5; San Juan de Rio Seco, 1; San Antonio, Cauca, 2; Nóvita Trail, western Andes, 1; Anolaima, 1 (the type); Remedios, 1; “Bogotá,” 1.

¹ The La Morelia specimen is more likely to belong to one of the eastern races. Unfortunately, it cannot be found in the American Museum’s collections.

² *Columba subvinacea recondita* Todd: Very close to *C. s. ogilvie-granti*, but back, wings, and tail darker, more olivaceous (less rufescent), while the head and under parts are perhaps more deeply vinaceous. Similar also to *C. s. purpureotincta*, but back, wings, and tail darker, more olivaceous, and dimensions decidedly larger. While specimens from south of the Amazon are fairly uniform, those from Obidos and vicinity are small like *purpureotincta*.

Additional material examined.—Brazil: Villa Braga, Rio Tapajóz, 2; Obidos, Pará, 2; Arimã, Rio Purús, 2; Hyutanahan, Rio Purús, 1; Nova Olinda, Rio Purús, 1; Jamarysinho, Rio Machados, 2; Allianca, Rio Madeira, 1; Engenho do Gama, Rio Guaporé, 3.

Columba subvinacea recondita Todd, Proc. Biol. Soc. Wash., 50, p. 187, 1937—Colonia do Mojuy, Santarem, Brazil (type in the Carnegie Museum, Pittsburgh).

Chloroenas plumbea var. Pelzeln, Orn. Bras., 3, p. 275, 1870—part, Matto Grosso (Engenho do Gama, Rio Guaporé) and Rio Madeira (Borba).

Columba plumbea pallescens (not of Sneath) Hellmayr, Nov. Zool., 17, p. 415, 1910—Allianca, Rio Madeira, and Jamarysinho, Rio Machados.

Range.—The Amazon Valley in northern Brazil, chiefly south of the river from the Rio Tapajóz west to the Rio Purús and south to the headwaters of the Rio Madeira (Rio Guaporé), northern Matto Grosso; but also found on the north bank at Obidos and vicinity.

Conover Collection.—16: Brazil (Boim, Rio Tapajóz, 4; Pinhel, Rio Tapajóz, 1; Tauary, Rio Tapajóz, 2; Lago Cuipeua, near Obidos, 7; Labrea, Rio Purús, 2).

****Columba subvinacea ogilvie-granti* Chubb.¹ GRANT'S RUDDY PIGEON.**

Columba ogilvie-granti Chubb, Bull. Brit. Orn. Cl., 38, p. 5, 1917—Guayabamba, northern Peru (type in British Museum examined); idem, Ibis, 1919, p. 34—Guayabamba, Cosnipata, and [Santa Cruz], Hualaga River, Peru.

Columba vinacea (not of Gmelin, 1789) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 198—Rio Ucayali, Peru; idem, l.c., 1869, p. 598—Cosnipata, Dept. Cuzco, Peru; idem, l.c., 1873, p. 306—Rio Ucayali, Sarayacu, and Santa Cruz, Peru; Taczanowski, l.c., 1882, p. 48—Huambo, Peru; Taczanowski, Orn. Pér., 3, p. 235, 1886—Peru (part, upper Ucayali, Santa Cruz, Sarayacu, "Loretoyacu [Whitely]"=Cosnipata).

Columba subvinacea (not *Chloroenas subvinacea* Lawrence) Taczanowski, Orn. Pér., 3, p. 236, 1886—part, Huambo; Goodfellow, Ibis, 1902, p. 227—part, Baeza, eastern Ecuador.

Columba plumbea (not of Vieillot) Salvadori, Cat. Bds. Brit. Mus., 21, p. 323, 1893—part, spec. k-m, Cosnipata and Santa Cruz, Peru (spec. examined); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 34, 1900—Rio Santiago, eastern Ecuador.

Columba subvinacea bogotensis (not *Chloroenas plumbea* subsp. *bogotensis* Berlepsch and Leverkühn) Chapman, Bull. Amer. Mus. N. H., 55, p. 164, 1926—"Napo" and Baeza, Ecuador; Todd, Proc. Biol. Soc. Wash., 50,

¹ *Columba subvinacea ogilvie-granti* Chubb: Very similar to *C. s. anolaimae*, but generally duller and browner (less reddish) above, while the head and under parts are, as a rule, somewhat lighter, brownish drab rather than vinaceous drab.

While not strongly marked, this form is recognizable in a series. There is some variation in size, birds from eastern Peru being generally smaller, though the type (adult male), with a wing of 183 mm. is among the largest we have seen.

Additional material examined.—Ecuador: Baeza, 3.—Peru: Pisana, 1; Guayabamba, 5; Santa Cruz, 1; Cosnipata, 2.—Bolivia: Rio Surutú, Santa Cruz, 2; Buenavista, Santa Cruz, 2; Todos Santos, Cochabamba, 1.

p. 189, 1937—part, Bolivia (Rio Surutú, Rio Yapacani, Buenavista); Peters, Bds. World, 3, p. 72, 1937—part, eastern Ecuador to eastern Bolivia.

Range.—Tropical zone of eastern Ecuador, eastern Peru, and eastern Bolivia.

Field Museum Collection.—1: Bolivia (mouth of Rio San Antonio, Rio Espirito Santo, 1).

Conover Collection.—3: Ecuador (Sara-Yaco, Rio Bobonaza, 1; headwaters of Rio Tigre, Napo-Pastaza, 1); Bolivia (San Carlos, Santa Cruz, 1).

****Columba subvinacea purpureotincta* Ridgway.¹ PURPLE-TINTED RUDDY PIGEON.**

Columba purpureotincta Ridgway, Proc. U. S. Nat. Mus., 10, p. 594 (footnote), 1888—Demerara, British Guiana (type in U. S. National Museum examined); Berlepsch and Hartert, Nov. Zool., 9, p. 117, 1902—Maipures, Rio Orinoco, Venezuela (crit.); Berlepsch, l.c., 15, p. 295, 1908—Cayenne; Snethlage, Journ. Orn., 56, p. 538, 1908—Alcobaça, Rio Tocantins, Brazil; idem, Bol. Mus. Goeldi, 8, p. 62, 1914—Rio Tocantins (Alcobaça) and Rio Gurupy, Pará; Chubb, Bds. Brit. Guiana, 1, p. 40, 1916—British Guiana (in part); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 351, 1916—Maipures, Rio Orinoco; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 68, 1926—Tury-assú, Maranhão; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 463, 1929—Tury-assú, Maranhão; Peters, Bds. World, 3, p. 73, 1937 (range).

Columba vinacea (not of Gmelin, 1789) Temminck, in Temminck and Knip, Les Pigeons, 1, Colombes, p. 87, pl. 41, 1811—French Guiana (type in Paris Museum); Salvin, Ibis, 1886, p. 173—Roraima, Bartica Grove, and Camacusa, British Guiana.

Columba bicolor (not of Scopoli, 1786) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 345, 1818—new name for *Columba vinacea* Temminck, preoccupied.

¹ *Columba subvinacea purpureotincta* Ridgway has been well characterized by Berlepsch and Hartert, but we cannot help thinking that its relationships are with *C. subvinacea* rather than with *nigrirostris* and, as it coexists over a large part of its range with races of *C. plumbea*, its specific distinctness from the latter group seems beyond question, although certain intermediates (hybrids?) sometimes render the assignment of single individuals rather difficult, as has already been insisted upon by Bonaparte (Compt. Rend. Acad. Sci. Paris, 39, p. 1109, 1854: s. n. *C. vinacea*). Ridgway's type, which both of us have seen in Washington, is unquestionably an example of the small, short-billed form of deep vinous coloration, diagnosed by Berlepsch and Hartert s. n. *C. purpureotincta*.

Birds from the Orinoco (Maipures) agree well with Guianan specimens, showing no approach to *C. s. peninsularis*, from which the present form differs by paler vinaceous under parts and more olivaceous (less reddish) back, wings, and tail. Two birds from the Rio Acará are slightly darker above, but agree with the Guianan ones in size. Further material is needed to decide the subspecific status of the inhabitants of the Pará region and adjoining Maranhão.

Additional material examined.—British Guiana: Demerara, 3 (including type); Rupununi River, 1; Quonga, 2; Bartica Grove, 2; Rio Caramang, 2; Camacusa, 1; Ourumee, 1; Roraima, 2; unspecified, 3.—Venezuela: Maipures, Rio Orinoco, 6.

Columba plumbea (not of Vieillot) Salvadori, Cat. Bds. Brit. Mus., 21, p. 323, 1893—part, British Guiana (Roraima [certé], Camacusa, and Bartica Grove, in part).

Columba subvinacea purpureotincta Todd, Proc. Biol. Soc. Wash., 50, p. 188, 1937—Rio Yuruan, Venezuela (crit.).

Oenoenas purpureotincta Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 331, 1916 (monog.).

Range.—French and British Guiana; southern Venezuela (Orinoco-Caura basin); extreme northeastern Brazil (Tury-assú, Maranhão; Rio Acará and Rio Gurupy, Pará; Alcobaça, Rio Tocantins; Serra da Lua, Rio Branco).¹

Field Museum Collection.—1: Brazil (Serra da Lua, near Bôa Vista, Rio Branco, 1).

Conover Collection.—2: Brazil (Villa Acará, Rio Acará, Pará, 2).

****Columba subvinacea zuliae* Cory.² ZULIA RUDDY PIGEON.**

Columba subvinacea zuliae Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 295, 1915—Orope, Zulia, Venezuela (type in Field Museum of Natural History); Todd, Proc. Biol. Soc. Wash., 50, p. 188, 1937—Santa Lucia, Miranda (crit.); Peters, Bds. World, 3, p. 72, 1937 (range).

Columba subvinacea (not *Chloroenas subvinacea* Lawrence) Salvadori, Cat. Bds. Brit. Mus., 21, p. 326, 1893—part, spec. h, Caracas.

Columba subvinacea subvinacea Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 159, 1912—Las Quiguas, Carabobo, Venezuela.

Columba plumbea (not of Vieillot) Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 166, 1901—San Julián, near La Guaira, Venezuela (spec. examined).

¹ The alleged occurrence of this pigeon on Curaçao Island based on a hearsay report of "*Columba plumbea*" by Peters (Journ. Orn., 40, p. 103, 1892) is altogether unlikely.

² *Columba subvinacea zuliae* Cory: Similar in size to *C. s. subvinacea*, but upper surface somewhat darker, more like *C. s. berlepschi*; differs from both by markedly deeper vinaceous under parts, this being particularly noticeable on abdomen and crissum. Wing, 161–167; tail, 125–135; bill, 12½–15.

Direct comparison of the specimens from Las Quiguas, Carabobo, and Galipán, Cerro del Avila, near Caracas, in the Munich Museum with our series revealed their absolute identity, and Wirt Robinson's example from San Julián turned out to be a young bird of the present form. The development of the rufous color on the inner web of the remiges is subject to considerable individual variation. The two "extremes" are represented on one side by the male from Las Quiguas, in which the entire inner web to the shaft (excepting the dusky tip) is bright cinnamonaceous, and on the other by a male from Páramo Tambor (No. 83), which has only a narrow rufescent fringe to the otherwise dark grayish brown vane. From *C. s. anolaimae*, with which comparison of our series could not be effectuated, *C. s. zuliae* differs obviously by smaller size and more deeply vinaceous under parts. *C. s. zuliae* comes also pretty close to *C. s. purpureotincta*, but is decidedly more rufescent on back and wings.

Additional material examined.—Venezuela: Las Quiguas, Carabobo, 1; Galipán, Cerro del Avila, 3; San Julián, near La Guaira, 1.

Oenoenas subvinacea zuliae Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 326, 1916 (diag.); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 34, 1922—Páramo Tambor and La Azulita, Mérida, Venezuela (habits).

Range.—Tropical and Subtropical zones of northwestern Venezuela, from Zulia and Mérida east to the Caracas region.

Field Museum Collection.—1: Venezuela (Orope, Zulia, 1).

Conover Collection.—5: Venezuela, Mérida (Páramo Tambor, 4; La Azulita, Mérida, 1).

****Columba subvinacea peninsularis* Chapman.¹ PARIA RUDDY PIGEON.**

Columba subvinacea peninsularis Chapman, Bull. Amer. Mus. N. H., 34, p. 366, 1915—mountains above Cristóbal Colón (alt. 1,500 ft.), Paria Peninsula, Venezuela (type in the American Museum of Natural History, New York, examined); Todd, Proc. Biol. Soc. Wash., 50, p. 188, 1937—San Rafael (near Cumanacoa), Venezuela (crit.); Peters, Bds. World, 3, p. 72, 1937 (range).

Oenoenas subvinacea peninsularis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 326, 1916 (diag.).

Range.—Tropical and Subtropical zones of northeastern Venezuela, in states of Sucre, Monagas, and Delta Amacuro (Guanoco).

Field Museum Collection.—1: Venezuela (Mount Turumiquire, Sucre, 1).

****Columba plumbea plumbea* Vieillot. PLUMBEOUS PIGEON.**

Columba plumbea Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 358, 1818—"Brésil, coll. Delalande fils"—vicinity of the Rio de Janeiro (type in Paris Museum examined); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 176, 1885—Mundo Novo and Arroio Grande, Rio Grande do Sul; Salvadori, Cat. Bds. Brit. Mus., 21, p. 323, 1893—part, south and east Brazilian references; Ihering, Annuario Est. Rio Grande do Sul, 16, p. 146, 1899—Mundo Novo and São Lourenço, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 398, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 163, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 180, 1906—Retiro do Ramos, Serra do Itatiaia; Ihering, Cat. Faun. Braz., 1, p. 20, 1907—São Paulo (Ypiranga, Alto da Serra, São Sebastião), Rio de Janeiro (Serra do Itatiaia), and Minas Geraes (Vargem Alegre, near Marianna); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 338, 1909—Serra do Itatiaia; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 460, 492, 1912—Vera Guarany,

¹ *Columba subvinacea peninsularis* Chapman: Like *C. s. zuliae* in coloration, but slightly more deeply vinaceous about head and under parts, and much smaller, about the size of *C. s. berlepschi*. Wing, 142–149; tail, 112–120; bill, 11½–13.

Additional material examined.—Venezuela: Cristóbal Colón, Paria Peninsula, 3 (including type); San Rafael, near Cumanacoa, 3; Guanoco, Delta Amacuro, 3.

Rio Iguassú, Paraná; Bertoni, El Hornero, 1, p. 256, 1919—Puerto Bertoni, Paraguay; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 253, 1923—Retiro do Ramos, Itatiaya.

Columba locutrix Wied, Reise Bras., 2, p. 118, 1821—forest of the lower Rio Ilhéos near São Pedro d'Alcantara, southern Bahia (type in coll. of Prince Wied, now in the American Museum of Natural History, examined; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 270, 1889); idem, l.c., 2, p. 213 (8vo ed., p. 212), 1821—forest near Jiboya, not far from Cidade da Conquista, Bahia; Temminck, Nouv. Rec. Pl. Col., livr. 28, pl. 166, 1822—Brazil; Wied, Beitr. Naturg. Bras., 4, (2), p. 455, 1833—Ilhéos and Jiboya, southern Bahia; Wagler, Syst. Av., 1, fol. 16, sp. 62, 1827—Brazil (descr.); Knip and Prévost, Les Pigeons, 2, p. 80, pl. 44, ca. 1842—Brazil.

Columba infuscata Lichtenstein, Verz. Doubl. Zool. Mus. Berlin, p. 66, 1823—Bahia (type in Berlin Museum examined); Wagler, Syst. Av., 1, fol. 16, sp. 65, 1827—Brazil (ex Lichtenstein); idem, Isis, 1829, col. 744 (crit.; = *C. locutrix* Wied).

Chloroenas plumbea Bonaparte, Compt. Rend. Acad. Sci. Paris, 39, p. 1109, Dec., 1854 (crit., synonym.); idem, Consp. Gen. Av., 2, p. 53, 1857—Brazil; Pelzeln, Orn. Bras., 3, p. 274, 1870—part, São Paulo (Itararé, Matto-dentro) and Paraná (Rio do Boraxudo); Berlepsch, Journ. Orn., 22, p. 240, 1874—Blumenau, Santa Catharina.

Chloroenas infuscata Burmeister, Syst. Uebers. Th. Bras., 3, p. 292, 1856—Nova Friburgo, Rio de Janeiro.

Columba plumbea plumbea Chubb, Ibis, 1919, p. 31 (diag.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 116, 1926—Rio Claro, Serra da Esperança, and Candido de Abreu, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 281, 1928—Serra do Itatiaya (habits); Pinto, Rev. Mus. Paul., 19, p. 62, 1935—Rio Jucurucú, Bahia; Peters, Bds. World, 3, p. 73, 1937 (range).

Oenoenas plumbea plumbea Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 324, 1916—southern Brazil and Paraguay.

Oenoenas plumbea locutrix Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 325, 1916—part, eastern Brazil (Bahia and "Pernambuco").

Columba plumbea locutrix Peters, Bds. World, 3, p. 73, 1937 (range).

Range.—Forest region of southeastern Brazil, from southern Bahia (Rio Ilhéos; near Cidade da Conquista; Rio Jucurucú) through Espírito Santo, eastern Minas Geraes (Vargem Alegre, near Mariana), Rio de Janeiro, São Paulo, Paraná, and Santa Catharina to Rio Grande do Sul, and northeastern Paraguay (Puerto Bertoni, Alto Paraná).¹

Conover Collection.—1: Brazil (Fazenda Cayoá, São Paulo, 1).

¹ A series from the wooded region of southeastern Brazil is fairly constant in the main features, although one notices, as usual in this group of pigeons, a certain amount of variation in the tone of the body plumage. There is, however, never the least trace of cinnamonaceous edging to the inner webs of the remiges. The under wing coverts and axillaries are uniform mouse gray; only in one (from Iguapé) out of sixteen adults are the first-named apically washed with cinnamonaceous. The presence of pinkish or pale lilac spots on the nape appears to be of a

****Columba plumbea baeri* Hellmayr.¹ BAER'S PLUMBEOUS PIGEON.**

Columba plumbea baeri Hellmayr, Nov. Zool., 15, p. 91, June, 1908—Goyáz City, Goyáz, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); Chubb, Ibis, 1919, p. 31—Goyáz; Pinto, Rev. Mus. Paul., 20, p. 37, 1936—Rio das Almas and Inhúmas (Rio Meia Ponte), Goyáz (crit.); Peters, Bds. World, 3, p. 73, 1937 (range).

Columba plumbea (not of Vieillot) Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 58—Santa Ana dos Alegres, Paracatú, and Lagõa Santa, Minas Geraes.

Chloroenas plumbea Pelzeln, Orn. Bras., 3, p. 274, 1870—part, Goyáz (spec. examined).

Range.—Interior of Brazil, in State of Goyáz (Goyáz City; Rio São Miguel; Rio das Almas; Inhúmas, Rio Meia Ponte) and in western Minas Geraes (Santa Ana dos Alegres; Paracatú; Lagõa Santa; Rio Jordão, Prov. Araguary).

Conover Collection.—1: Brazil (near Cavalcanti, Rio São Miguel, Goyáz, 1).

****Columba plumbea pallescens* Snethlage.² AMAZONIAN PLUMBEOUS PIGEON.**

Columba plumbea pallescens Snethlage, Journ. Orn., 56, p. 22, 1908—Bom Lugar, Rio Purús, Brazil (type in Goeldi Museum, Pará, examined);

purely individual nature, it being dependent on neither sex nor age. Birds from Bahia (*locutrix*=*infuscula*) agree in coloration with those of more southern origin, but are perhaps slightly smaller. Wied's type is so much faded as to be useless for comparative purposes.

Additional material examined.—Brazil: Rio Ilhéos, Bahia, 1; Bahia, 3; Victoria, Espírito Santo, 2; Rio de Janeiro, 1; Iguapé, São Paulo, 1; Mattodentro, São Paulo, 1; Itararé, São Paulo, 1; São Sebastião, São Paulo, 3; Victoria, São Paulo, 1; Roça Nova, Serra do Mar, Paraná, 1; Rio do Boraxudo, Paraná, 1; Blumenau, Santa Catharina, 1.

¹ *Columba plumbea baeri* Hellmayr: Similar to *C. p. plumbea*, but with decidedly shorter bill, and much paler and grayer; the under parts between pale mouse gray and light mouse gray with a faint tinge of pale vinaceous drab on forehead, sides of neck, and lower neck; middle of throat more whitish, less buffy; axillaries and under wing coverts paler gray. Similar in small bill to the Amazonian form (*C. p. wallacei*), but easily distinguished by the predominantly light gray instead of strongly vinaceous anterior under parts and sides of head and neck. Wing, 172–184; tail, 138–148; bill, 14–15.

Additional material examined.—Brazil: Goyáz City, Goyáz, 5; Rio Jordão, Prov. Araguary, Minas Geraes, 1.

² *Columba plumbea pallescens* Snethlage: Similar to *C. p. baeri* and about the same size, but crown and hind neck more conspicuously washed with vinaceous; under parts, especially anteriorly, likewise strongly tinged with brownish drab or vinaceous drab. Wing, 160 (female) to 180 (male).

The junior author regards this form as readily separable from both *C. p. bogotensis* and *C. p. wallacei* by its duller, more grayish vinaceous head and under parts, and darker, more olive dorsal surface. Among the birds he has examined, specimens from southern and central Ecuador (head of Rio Tigre, Rayo Yaco) and extreme northeastern Peru (Puerto Indiana, Rio Ucayali) undoubtedly belong

idem, Bol. Mus. Goeldi, 8, p. 62, 1914—part, Rio Purús (Bom Lugar); Todd, Proc. Biol. Soc. Wash., 50, p. 187, 1937—Rio Purús (crit.); Peters, Bds. World, 3, p. 73, 1937—part, Rio Purús.

Range.—Extreme southeastern Ecuador (Rio Tigre) and the adjacent parts of northeastern Peru (Puerto Indiana, Rio Amazonas; Sarayacu and Lagarto, Rio Ucayali) and through Brazil east to the Rio Purús.

Conover Collection.—12: Brazil (Santo Antonio, Rio Juruá, Amazonas, 1; Igarapé do Gordão, Rio Juruá, Amazonas, 1); Ecuador (head of Rio Tigre, 7; Raya Yaco, 2; Rio Catapino, 1).

****Columba plumbea bogotensis* (Berlepsch and Leverkühn).¹**
ANDEAN PLUMBEOUS PIGEON.

Chloroenas plumbea subsp. *bogotensis* Berlepsch and Leverkühn, Ornith., 6, p. 32, 1890—Santa Fé de Bogotá, Colombia (type in Kiel Museum, now in Berlin Museum, examined).

Columba plumbea delicata Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44, 1902—La Gloria, Chanchamayo, Dept. Junín, Peru (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 256, 1930—Huachipa, Dept. Huánuco, Peru (crit.); Todd, Proc. Biol. Soc. Wash., 50, p. 187, 1937—Colombia (El Cauca), Venezuela (La Azulita), and Bolivia (Cerro Hosane); Peters, Bds. World, 3, p. 72, 1937 (range).

to *pallascens*, but two specimens from Rio Suno, Ecuador (above Avila) are more vinaceous below and browner (less olivaceous) above.

Additional material examined.—Brazil: Arimã, Rio Purús, 3; Bom Lugar, Rio Purús, 1 (the type); Hyutanahan, Rio Purús, 1.—Peru: Puerto Indiana, Rio Amazonas, 1; Sarayacu, Rio Ucayali, 1; Lagarto, Rio Ucayali, 2.

¹ *Columba plumbea bogotensis* (Berlepsch and Leverkühn): Exceedingly close to *C. p. pallascens*, but coloration below slightly darker, more pinkish vinaceous; back, wings, and tail more brownish, less olive; size slightly larger. Birds from the Mérida region of Venezuela, Colombia, eastern Ecuador (Rio Suno; Baeza; Sarayacu), and Peru, seem, admitting the usual amount of individual variation, to be alike in coloration as well as in size, while the few available Bolivian specimens (*andicola*) are, on average, slightly paler, less pinkish underneath. The type of *C. plumbea bogotensis*, courteously forwarded by Dr. E. Stresemann for comparison with the material in the British Museum, proves, as Hellmayr had expected, to be an example of the long-billed, olive-backed Colombian form of the *plumbea* group, being very different from the thick-billed, ruddy-backed *C. s. anolaimae*. In measurements (wing, 185; tail, 145; bill, 18) and coloration it agrees with other Colombian examples. It may be added that many years ago the late Count Berlepsch suggested to Hellmayr the identity of the two Andean *plumbea* races described by him, the publication of the name *bogotensis* having admittedly escaped his memory.

Additional material examined.—Venezuela, Mérida: La Azulita, 1; mountains near Mérida, 2; Carbonera, 2.—Colombia: Remedios, 1; Medellín, 1; El Cauca, Santander, 2; Bogotá, 5; Buena Vista, above Villavicencio, 1; Aguadita, 1.—Ecuador: Rio Suno, above Avila, 2; Baeza, 1; Sarayacu, 2.—Peru: Guayabamba, 1; Piña, 1; La Gloria, Chanchamayo, 3; Tulumayo, Junín, 1; Chacaybamba, 1; Chunchotambo, 1; Santo Domingo, 1; Oroya, Puno, 1.—Bolivia: Mapiri, 2; Cerro Hosane, Santa Cruz, 2.

Chloroenas bicolor (not *Columba bicolor* Vieillot) Sclater, Proc. Zool. Soc. Lond., 24, p. 30, 1856—Bogotá (spec. in British Museum examined).

Chloroenas plumbea (not *Columba plumbea* Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 555—Monterico and Amable Maria, Peru.

Columba plumbea Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 639—Tilotilo and Mapiri, Bolivia; Taczanowski, Orn. Pér., 3, p. 234, 1886—Monterico, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 323, 1893—part, spec. f, g, Mapiri, Bolivia.

Columba vinacea (not of Temminck) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 543—Remedios, Colombia (spec. examined); Taczanowski, Orn. Pér., 3, p. 235, 1886—part, Amable Maria.

Columba plumbea propinqua Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 295, 1915—Moyobamba, Peru (type in Field Museum of Natural History); Chapman, Bull. Amer. Mus. N. H., 36, p. 203, 1917—Buena Vista, eastern Colombia (crit.); idem, Bull. U. S. Nat. Mus., 117, p. 46, 1921—Rio Comerciato, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 163, 1926—Rio Suno and below San José, Ecuador.

Columba plumbea andicola Chubb, Bull. Brit. Orn. Cl., 38, p. 32, 1917—Mapiri, Bolivia (type in British Museum examined); idem, Ibis, 1919, p. 32—part, Baeza, Ecuador, and Oroya, Puno, Peru; idem, Ibis, 1919, p. 33—Chanchamayo, Peru, and Mapiri, Bolivia (crit.).

Oenoenas plumbea propinqua Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 325, 1916—northern Peru to Colombia (diag.); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 34, 1922—La Azulita, Mérida, Venezuela.

Range.—Tropical zone of the Andes from eastern Bolivia through eastern Peru (Rio Comerciato, Urubamba; Monterico, Ayacucho; Amable Maria and La Gloria, Chanchamayo, Junín; Huachipa, Huánuco; Piña, Huallaga drainage; Moyobamba, etc.), eastern Ecuador (Baeza; Sarayacu; Rio Suno; below San José), and eastern Colombia (Buena Vista, eastern base of eastern Andes) to north-western Venezuela (La Azulita and Carbonera, Mérida).

Field Museum Collection.—3: Peru (Moyobamba, 3).

Conover Collection.—10: Venezuela (La Azulita, Mérida, 1); Peru (Huachipa, Huánuco, 1; Alto Quimire, Chanchamayo, 1); Bolivia (Incachaca, Cochabamba, 4; Yungas de Cochabamba, 3).

**Columba plumbea wallacei* Chubb.¹ WALLACE'S PLUMBEOUS PIGEON.

¹ *Columba plumbea wallacei* Chubb: Hardly distinguishable from *C. p. bogotensis* but on the average is of smaller size and has slightly duller, dingier under parts with a darker vinaceous tinge on the breast.

This is a very poor race and, were it not for the interposed *C. p. pallescens*, might well be united to *bogotensis*, without doing violence to facts.

Additional material examined.—Brazil: Obidos, Pará, 1; Rio Jamauchim, 1; Villa Braga, Rio Tapajóz, 3; Manacapurú, 1; Rio Manacapurú, 1; Ipitinga, Pará,

- Columba plumbea wallacei* Chubb, Bull. Brit. Orn. Cl., 38, p. 32, 1917—Rio Capim, Pará, Brazil (type in British Museum examined); idem, Ibis, 1919, p. 31—Rio Capim (crit.); Todd, Proc. Biol. Soc. Wash., 50, p. 186, 1937 (crit., range).
- Columba vinacea* (not of Temminck) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 590—Rio Capim, Pará; Goeldi, Ibis, 1903, p. 499—Rio Capim (ex Sclater and Salvin).
- Columba plumbea* (not of Vieillot) Salvin, Ibis, 1886, p. 173—Bartica Grove and Camacusa, British Guiana; Salvadori, Cat. Bds. Brit. Mus., 21, p. 323, 1893—part, spec. r, w, Rio Capim, and British Guiana (in part); Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará.
- Columba locutrix* (not of Wied) Riker and Chapman, Auk, 8, p. 162, 1891—Santarém, Brazil.
- Columba plumbea bogotensis* (not of Berlepsch and Leverkühn) Hellmayr, Nov. Zool., 13, p. 383, 1906—Santo Antonio do Prata, Pará.
- Columba plumbea pallescens* (not of Sneath) Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 79, 96, 1912—Ipitinga, Rio Acará, and Pará, Brazil; Sneath, Bol. Mus. Goeldi, 8, p. 62, 1914—part, Rio Jamauchim (Santa Elena); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Castanhal, Pará; Naumburg, Bull. Amer. Mus. N. H., 60, p. 66, 1930—Tapirapoan, Matto Grosso.
- Oenoenas plumbea locutrix* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 44, 1918—Javaweg, Surinam.
- Columba plumbea purpureotincta* Chubb, Ibis, 1919, p. 32—British Guiana (in part).
- Columba purpureotincta* (not of Ridgway) Chubb, Bds. Brit. Guiana, 1, p. 40, 1916 (in part).
- Columba plumbea pallescens* Peters, Bds. World, 3, p. 73, 1937—part, Rio Tapajóz east to Pará.

Range.—French, Dutch, and British Guiana, and Amazonia, from the Pará region west to the Rio Negro and Rio Tapajóz, south to northern Matto Grosso.

Field Museum Collection.—6: British Guiana (Hyde Park, Demerara River, 1; Demerara River, 1; Konewaruk, 1; Boundary Camp, Itabu Creek Head, upper New River, 2; Middle Base Camp, Itabu Creek, upper New River, 1).

Conover Collection.—6: Brazil (Tome-assú, Rio Acará, 1; Villa Acará, Rio Acará, 1; Boim, Rio Tapajóz, 1); British Guiana (Rockstone, Essequibo River, 3).

****Columba plumbea chapmani* (Ridgway).¹ CHAPMAN'S PLUMBEOUS PIGEON.**

1; Prata, Pará, 1; Tapirapoan, Matto Grosso, 1.—French Guiana: Pied Saut, Oyapock River, 2.—British Guiana (various localities): 30.

¹ *Columba plumbea chapmani* (Ridgway): Very close to *C. p. bogotensis*, but distinguishable by smaller size; slightly darker, more fuscous back; blacker

Oenoenas plumbea chapmani Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 325, May 5, 1916—Gualea, Ecuador (type in the American Museum of Natural History, New York).

Columba plumbea bogotensis (not *Chloroenas plumbea* subsp. *bogotensis* Berlepsch and Leverkühn) Hartert, Nov. Zool., 9, p. 602, 1902—Paramba, Ecuador (spec. examined); Chubb, Ibis, 1919, p. 32—part, Mindo, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 17, 1922—Mindó, Ecuador.

Columba plumbea (not of Vieillot) Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B.5, 1911—Gualea.

Columba plumbea chapmani Chapman, Bull. Amer. Mus. N. H., 55, p. 163, 1926—Gualea, below Mindo, El Chiral, and La Chonta, Ecuador (crit.); Peters, Bds. World, 3, p. 72, 1937 (range).

Range.—Tropical and Subtropical zones of western Ecuador and western Colombia (western Andes).

Field Museum Collection.—1: Ecuador (Mindó, 1).

Conover Collection.—14: Colombia, Cauca (Rio Munchique, El Tambo, 3; Rio Michenque, El Tambo, 1); Ecuador (Taguaguiri, 3; Ilambo, 1; San Vicente, Pichincha, 4; El Tambo, Loja, 2).

Genus ECTOPISTES Swainson

Ectopistes Swainson, Zool. Jour., 3, No. 11, p. 362, Sept.–Dec., 1827—type, by subs. desig. (Gray, List Gen. Bds., p. 58, 1840), *Columba migratoria* Linnaeus.

Trygon (not of Cuvier, 1817) Brehm, Handb. Naturg. Vög. Deuts., p. 394, 1831—type, by virtual monotypy, *Columba migratoria* Linnaeus.

**Ectopistes canadensis* (Linnaeus). PASSENGER PIGEON.

Columba canadensis Linnaeus, Syst. Nat., 12th ed., 1, p. 284, 1766—based on “La Tourterelle de Canada” Brisson, Orn., 1, p. 118, No. 21; Canada (descr. of female and young; cotypes in Réaumur Collection); Oberholser, Science, (n.s.), 48, p. 445, 1918.

Columba migratoria Linnaeus, Syst. Nat., 12th ed., 1, p. 285, 1766—based mainly on “The Pigeon of Passage” Catesby, Nat. Hist. Carolina, 1, p. 23, pl. 23; “in America septentrionali”=South Carolina (descr. of adult male).

Columba histrio P. L. S. Müller, Natursyst., Suppl., p. 134, 1776—based on “Tourterelle, du Canada” Daubenton, Pl. Enl., pl. 176.

tail; and somewhat darker under surface. Wing, 168–176; tail, 138–140; bill, 15½–17.

Birds from the western Andes of Colombia agree with those from Ecuador. Like the other members of the *plumbea* complex, it has no trace of vinaceous on the remiges, axillaries, or under wing coverts.

Additional material examined.—Ecuador: Paramba, 2; Gualea, 1; Santa Cruz, 1; Mindó, 1; La Chonta, Prov. del Oro, 1; El Chiral, Prov. del Oro, 1.—Colombia: Jiménez, 3.

Columba ventralis P. L. S. Müller, *Natursyst.*, Suppl., p. 134, 1776—based on "Tourterelle, du Canada" Daubenton, *Pl. Enl.*, pl. 176.

Trygon gregaria Brehm, *Vogelfang*, p. 258, (early in) 1855—North America.

Ectopistes migratorius Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 369, 1893 (monog.); Shufeldt, *Auk*, 31, pp. 358–362, pl. 34, 1914 (osteology); Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 334, 1916 (monog., full bibliog.); Bradlee, Mowbray, and Eaton, *Proc. Bost. Soc. N. H.*, 39, p. 326, 1931—Bermudas; Mitchell, *Contr. Roy. Ontario Mus. Zool.*, 7, pp. 1–181, col. pl., 1935—Ontario (monog.).

Ectopistes canadensis Barbour, *Mem. Nutt. Orn. Cl.*, 6, p. 77, 1922—Cuba (two records).

Ectopistes migratoria Peters, *Bds. World*, 3, p. 83, 1937 (range).

Range.—Extinct. Formerly breeding from middle-western Mackenzie, central Keewatin, Ontario, and Quebec, and Nova Scotia south to Kansas, Mississippi, Kentucky, Pennsylvania, and New York; wintering from Arkansas and North Carolina south to Texas, Louisiana, and Florida; casual west to Oregon, Nevada, Washington, and eastern Mexico; accidental in Bermuda, Cuba, the British Isles, and Europe.

Field Museum Collection.—23: Nova Scotia (Halifax, 1); Massachusetts (West Bridgeport, 1; purchased in Boston, 1; Boston, 1); Connecticut (Deep River, Middlesex County, 1; East Haven, New Haven County, 2; Suffield, Hartford County, 1; Winthrop, Middlesex County, 1); New York (Troy, 1); Wisconsin (Delta, 1; Lake Koshkonong, 1); Illinois (Grand Crossing, Chicago, 1); Indiana (Fountain County, 1; De Kalb County, 1; unspecified, 2); unspecified, 6.

Conover Collection.—16: Rhode Island (Ashton, Providence County, 1; Kingston, Washington County, 1); New Hampshire (New Hampton, Belkna County, 1; Wolfeborough, Carroll County, 1); New York (Troy, Rensselaer County, 1); Maryland (Jefferson, Frederick County, 1); Ontario (London, 1; Cookstown, Simcoe, 1); Wisconsin (Platteville, 3); Illinois (Grand Crossing, Chicago, 1; junction Illinois and Mississippi rivers, Calhoun County, 2); unspecified, 2.

Genus *ZENAIIDURA* Bonaparte¹

Zenaidura Bonaparte, *Compt. Rend. Acad. Sci. Paris*, 40, No. 3, p. 96, for Jan. 15, 1855—type, by orig. desig., *Columba carolinensis* Linnaeus.

¹*Zenaidura yucatanensis* Lawrence (*Ann. Lyc. Nat. Hist. N. Y.*, 9, p. 208, 1869—Mérida, Yucatan, Mexico; type in U. S. National Museum), known from a single specimen, is now regarded as a hybrid between *Zenaidura macroura* (*marginella*?) and *Zenaidura aurita yucatanensis*. Cf. Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 373 (note), 1893; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 353, 1916; Peters, *Condor*, 36, p. 215, 1934.

Perissura Cabanis, Journ. Orn., 4, p. 112, 1856—substitute name for *Zenaidura* Bonaparte.

Stenuroena Reichenbach, Vollst. Naturg. Tauben, p. 20, 1862—type, by monotypy, *Zenaida stenura* Bonaparte.

Platypteroena Reichenbach, Vollst. Naturg. Tauben, p. 20, 1862—type, by monotypy, *Zenaida pentheria* Bonaparte.

Zenaedura Coues, Key N. Amer. Bds., p. 226, 1872—emendation of *Zenaidura* Bonaparte.

****Zenaidura macroura macroura* (Linnaeus). CUBAN MOURNING DOVE.**

Columba macroura Linnaeus, Syst. Nat., 10th ed., 1, p. 164, 1758—principally based upon "The Long-tail'd Dove" Edwards, Nat. Hist. Bds., 1, p. 15, pl. 15, and "*Columba, macroura*" Edwards, l.c., 2, p. 125; West Indies=Cuba.¹

Columba marginata Linnaeus, Syst. Nat., 12th ed., 1, p. 286, 1766—based on "The Long-tail'd Dove" Edwards, Nat. Hist. Bds., 1, p. 15, pl. 15; West Indies.

Zenaidura macroura bella Palmer and Riley, Proc. Biol. Soc. Wash., 15, p. 33, 1902—Mariel, Cuba (type in U. S. National Museum); Bangs and Zappey, Amer. Natur., 39, p. 197, 1905—Rio Santiago and Hospital, Isle of Pines (crit.).

Zenaidura carolinensis (not *Columba carolinensis* Linnaeus) Salvadori, Cat. Bds. Brit. Mus., 21, p. 374, 1893—part, Cuba (San Cristóbal) and Haiti; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 242, 1902—part, Cuba and Haiti.

Zenaidura macroura Bangs, Auk, 18, p. 358, 1901—Divalá, Chiriquí (Nov.).

Zenaidura macroura macroura Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 341, 1916 (monog., full bibliog.); Todd, Ann. Carnegie Mus., 10, p. 223, 1916—Bibijagua, Los Indios, and Bagarona, Isle of Pines (crit.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 76, 1923—Cuba; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 192, 1931—Hispaniola (monog., full bibliog.); Griscom, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Santiago, Veraguas (breeding in 1925), and Divalá, Chiriquí, Panama; Peters, Bds. World, 3, p. 84, 1937 (range).

Range.—Islands of Cuba, Isle of Pines, Jamaica, and Hispaniola, Greater Antilles; sparingly along the coast of Central America, from British Honduras (Toledo District, Oct. 17) to Panama (Divalá, Chiriquí, Nov. 11, 1900; Santiago, Veraguas, breeding in 1925).

Field Museum Collection.—3: Dominican Republic (Honduras, Santo Domingo, 1); Haiti (Le Coup, 1; Kenskoff, 1).

¹ Cf. Wetmore and Swales (Bull. U. S. Nat. Mus., 155, pp. 195–197, 1931), who explain at length that *Columba macroura* was originally a composite species—the second reference quoted by Linnaeus, that of Catesby (Nat. Hist. Carolina, 1, p. 23, pl. 23) being the Passenger Pigeon—and formally restrict the name to the bird described and figured by Edwards, stated to have been brought from the West Indies; suggesting (pp. 192 [note 66], 197) at the same time Cuba as type locality.

Conover Collection.—7: Cuba (Guantánamo, 1; Bacunagua, Pinar del Rio, 1; Minas, Havana, 2; Catalina de Guines, Havana, 1; Justiz, Havana, 1; Artemisa, Pinar del Rio, 1).

****Zenaidura macroura carolinensis* (Linnaeus). MOURNING DOVE.**

Columba carolinensis Linnaeus, Syst. Nat., 12th ed., 1, p. 286, 1766—based principally¹ on "The Turtle of Carolina" Catesby, Nat. Hist. Carolina, 1, p. 24, pl. 24; "in America"—South Carolina (ex Catesby).

Columba fusca P. L. S. Müller, Natursyst., Suppl., p. 134, 1776—based on "Tourterelle, de la Caroline" Daubenton, Pl. Enl., pl. 175; Carolina.

Zenaidura carolinensis Salvadori, Cat. Bds. Brit. Mus., 21, p. 374, 1893—part, eastern North America; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 242, 1902 (in part).

Zenaidura macroura (not *Columba macroura* Linnaeus) Riley, in Shattuck, The Bahama Islands, p. 362, 1905—Abaco, Eleuthera, New Providence, Bird Rock, and Long Island.

Zenaidura macroura carolinensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 345, 1916 (monog., full bibliog.); Bradlee, Mowbray, and Eaton, Proc. Bost. Soc. N. H., 39, p. 326, 1931—Bermudas (migratory visitant); Griscom, Bull. Amer. Mus. N. H., 64, p. 112, 1932—La Montañita, Guatemala; idem, Bull. Mus. Comp. Zool., 78, p. 310, 1935—Divalá, Chiriquí, Panama; Peters, Bds. World, 3, p. 83, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 73, p. 187, 1938—San Salvador, Colima, and Rio Goascorán, El Salvador.

Range.—Eastern North America from New Brunswick, Nova Scotia, southern Maine, Ontario, Michigan, and Wisconsin west to eastern Kansas and Iowa, and south to the Gulf Coast and the Bahamas; winters from Iowa, southern Michigan, and Massachusetts southward through its range, and casually along the eastern coast of Mexico and Central America to Panama (one record from Divalá, Chiriquí, Nov. 26); casual or accidental in Greenland (Rey Bay, Sept. 7, 1891), Quebec, Labrador, and Bermudas.

Field Museum Collection.—28: Massachusetts (Great Island, Barnstable County, 1); New York (Shelter Island, 1); New Jersey (Englewood, Bergen County, 1); Indiana (Miller, Lake County, 1); Illinois (Chicago, 3; Fox Lake, Lake County, 2); Wisconsin (Beaver Dam, Dodge County, 6); Iowa (Knoxville, Marion County, 1); Florida (Pilot-town, Duval County, 1; Pine Island, Lee County, 1; Key West, Monroe County, 2; Amelia Island, Nassau County, 1; Mary Esther, Okaloosa County, 1); Bahamas (Abaco, 1; Andros,

¹ The reference to Brisson belongs only in part to the present form, while Marcgrave's "*Picacuroba*" is *Z. auriculata noronha*.

1; Rock Sound, Eleuthera, 1; Great Bahama, 2); El Salvador (San Salvador, 1).

Conover Collection.—4: Florida (Amelia Island, 2); Illinois (Wheaton, DuPage County, 1; Lacon, Marshall County, 1).

****Zenaidura macroura marginella* (Woodhouse). WESTERN MOURNING DOVE.**

Ectopistes marginella Woodhouse, Proc. Acad. Nat. Sci. Phila., 6, No. 3, p. 104, 1852—Cross Timbers, on the north fork of the Canadian River, Oklahoma (present location of type unrecorded).

Zenaidura carolinensis (not *Columba carolinensis* Linnaeus) Salvadori, Cat. Bds. Brit. Mus., 21, p. 374, 1893—part, localities in Texas, California, Mexico, and Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 242, 1902 (in part); Carriker, Ann. Carnegie Mus., 6, p. 396, 1910—Escazú, Miravalles, El Hogar, and La Hondura, Costa Rica.

Zenaidura macroura marginella Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 347, 1916 (monog., full bibliog.); Grinnell, Univ. Calif. Pub. Zool., 32, p. 104, 1928—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 248, 1931—Sonora (Tecoripa, San Pedro Mártir Island, southwest of Nogales, Tóbari Bay); Griscom, Bull. Amer. Mus. N. H., 64, p. 112, 1932—La Montañita, Guatemala; idem, Bull. Mus. Comp. Zool., 75, p. 372, 1934—Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 434, 1934—Alamos and Oposura, Sonora; Griscom, l.c., 78, p. 310, 1935—Panama; Peters, Bds. World, 3, p. 83, 1937 (range).

Range.—Western and interior North America, from Minnesota, western Arkansas, and Oklahoma to the Pacific coast, north to Manitoba, Saskatchewan, and British Columbia, and south throughout Lower California and Mexico; winters south through Central America to western Panama; casual at Fort Yukon, Alaska.

Field Museum Collection.—22: Colorado (Fort Lyon, Bent County, 2); Texas (Port Lavaca, Jackson County, 1; Fort Davis, Jeff Davis County, 1; Ingram, Kerr County, 1; Corpus Christi, Nueces County, 4); New Mexico (Deming, Luna County, 2); Arizona (Huachuca Mountains, Cochise County, 3; Tucson, Pima County, 1; Calabasas, Santa Cruz County, 2); Mexico (Samachique, Chihuahua, 3); Guatemala (Salamá, Baja Verapaz, 1; El Rancho, Zacapa, 1).

Conover Collection.—23: Colorado (Pinnacle, Routt County, 1); California (San Miguel, San Luis Obispo County, 2; Goleta, Santa Barbara County, 1; Placerita Canyon, Los Angeles County, 1); Mexico (Tecoripa, Sonora, 6); Guatemala (Sanarate, Dept. Guatemala, 1); Honduras, Tegucigalpa (Monte Redondo, near Archaga, 5; Comayaguela, 1); Costa Rica (Cartago, Cartago, 5).

Zenaidura macroura tresmariae Ridgway. TRES MARIAS
MOURNING DOVE.

Zenaidura macroura tresmariae Ridgway, Proc. Biol. Soc. Wash., 28, p. 107, 1915—Maria Madre Island, Tres Marias group (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 7, p. 351, 1916—Tres Marias Islands (monog.); Peters, Bds. World, 3, p. 84, 1937 (range).

Zenaidura macroura (not *Columba macroura* Linnaeus) Nelson, N. Amer. Fauna, 14, p. 36, 1899—Maria Madre Island, Tres Marias.

Range.—Maria Madre Island, Tres Marias group, off Nayarit, western Mexico.

***Zenaidura macroura clarionensis** Townsend. CLARION ISLAND
MOURNING DOVE.

Zenaidura clarionensis Townsend, Proc. U. S. Nat. Mus., 13, p. 133, 1890—Clarion Island, Revillagigedo group, Mexico (type in U. S. National Museum); Salvadori, Cat. Bds. Brit. Mus., 21, p. 378, 1893—Clarion Island; Anthony, Auk, 15, p. 318, 1898—Clarion Island; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 244, 1902—Clarion Island.

Zenaidura macroura clarionensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 344, 1916 (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 294, 1926—Clarion Island; Peters, Bds. World, 3, p. 84, 1937 (range).

Range.—Clarion Island, Revillagigedo group, off western Mexico.

Field Museum Collection.—1: Mexico (Clarion Island, Revillagigedo group, 1).

Conover Collection.—2: Mexico (Clarion Island, Revillagigedo group, 2).

Zenaidura graysoni Lawrence. SOCORRO MOURNING DOVE.

Zenaidura graysoni (Baird MS.) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 17, 1871—Socorro Island, Mexico (type in U. S. National Museum; descr. of young); Grayson, Proc. Bost. Soc. N. H., 14, p. 299, 1871—Socorro (habits); Lawrence, Mem. Bost. Soc. N. H., 2, p. 304, 1874—Socorro; Salvin, Ibis, 1874, p. 312 (crit.); Townsend, Proc. U. S. Nat. Mus., 13, p. 135, 1890—Socorro (descr. of adult female); Salvadori, Cat. Bds. Brit. Mus., 21, p. 378, 1893; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 244, 1902; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 352, 1916—Socorro (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 295, 1926—Socorro; Peters, Condor, 36, pp. 214, 215, 1934 (crit.); idem, Bds. World, 3, p. 84, 1937 (range).

Range.—Socorro Island, Revillagigedo group, off western Mexico.

***Zenaidura auriculata¹ caucae** (Chapman).² CAUCA EARED DOVE.

¹*Z. auriculata* and allies should be placed in the genus *Zenaidura*, as has been pointed out by Peters (Condor, 36, p. 214, 1934).

²*Zenaidura auriculata caucae* (Chapman): Very similar to *Z. a. auriculata*, but slightly smaller; tail more strongly graduated; under parts more deeply vin-

Zenaida auriculata caucae Chapman, Amer. Mus. Nov., 31, p. 1, 1922—Cali, Cauca, Colombia (type in the American Museum of Natural History, New York); Naumburg, l.c., 648, p. 14, 1933—Cali, Cauca (crit.).

(?)*Zenaida ruficauda* (not of Bonaparte) Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 302, 1899—plain of Tolima, central Andes, Colombia.

Zenaida auriculata (not *Peristera auriculata* Des Murs) Chapman, Bull. Amer. Mus. N. H., 36, p. 206, 1917—Cali and La Manuelita, Cauca, Colombia.

Zenaidura auriculata caucae Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 84, 1937 (range).

Range.—Tropical zone of the upper Cauca Valley, Colombia (Cali; El Tambo; Timba; Atuncela; La Manuelita, east of Palmira).

Conover Collection.—6: Colombia, Cauca (El Tambo, 4; Timba, Valle, 2).

****Zenaidura auriculata hypoleuca* (Bonaparte).¹ BONAPARTE'S EARED DOVE.**

Zenaida hypoleuca (G. R. Gray MS.) Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 97, for Jan. 15, 1855—"ex America centrali" (type in British Museum examined); idem, Conspect. Gen. Av., 2, p. 83, "1854" [=1857]—"in America centrali";² Sclater, Proc. Zool. Soc. Lond., 26, p. 460, 1858—Gualaquiza and Cuenca, Ecuador; idem, l.c., p. 556, 1858—Riobamba, Ecuador; idem, l.c., 28, p. 97, 1860—Calacali, near Quito, Ecuador.

Columba aurita (not of Temminck) Tschudi, Arch. Naturg., 10, (1), p. 306, 1844—Peru; idem, Faun. Peru., Orn., p. 45, 1845—Peru.

ceous. Wing, 138–144, (female) 135–140; tail, 85–96, (female) 85; graduation of tail, 25–31.

This form, which by the strongly vinaceous tone of the posterior under parts reverts to the characters of typical *auriculata*, may be distinguished from *Z. a. hypoleuca* by somewhat shorter wings; vinaceous abdomen; decidedly deeper, ochraceous-buff rather than light buff, under tail coverts; and more strongly graduated tail; from *Z. a. stenura* by larger size; white tail-tips; ochraceous-buff instead of vinaceous vent and under tail coverts, etc.

Additional material examined.—Colombia: Atuncela, western Andes, 4.

¹*Zenaidura auriculata hypoleuca* (Bonaparte): Nearest to *Z. a. auriculata*, but somewhat smaller and much paler; upper parts lighter and more grayish; the vinaceous color on sides of head, neck, and breast lighter and more pinkish; lower breast, abdomen, and under tail coverts pale (pinkish) buff, etc. Birds from Ecuador and various parts of Peru agree well.

Additional material examined.—Ecuador: Sinche Guaranda, 1; Riobamba, 1; Guallabamba, Riobamba, 2; Cañar, 2; Guishapa, Oña, 1; Loja, 1; unspecified, 4. —Peru: Catacaos, Piura, 1; Chosica, 1; Trujillo, 1; Viña, Huamachuco, 2.

²According to G. R. Gray (List Spec. Bds. Brit. Mus., 4, p. 48, 1856), the type was brought by Kellett and Wood from "Pearl Island," Bay of Panama, an obvious mistake, as no dove of this group has ever been found again on the Pearl Islands. Cf. Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 147, 1905. Since the collectors of the type are known to have worked also at Guayaquil, Ecuador, where this dove is not infrequently met with, this place has been suggested by Zimmer (Field Mus. Nat. Hist., Zool. Ser., 17, p. 257, 1930) as an appropriate type locality. The type fully agrees with Ecuadorian examples.

Zenaida auriculata (not *Peristera auriculata* Des Murs) Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 989—Arequipa, Peru; iidem, l.c., 1868, p. 176—Tambo Valley, Arequipa; iidem, l.c., 1868, p. 570—western Peru; Taczanowski, l.c., 1874, p. 555—Chorillos, Lima, and Huanta, Peru; idem, l.c., 1880, p. 213—Cutervo, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 384, 1893—part, spec. a, c'-n', "Pearl Island," Ecuador (Sical), and Peru (Arequipa, Catarindos Valley, Islay); Salvin, Nov. Zool., 2, p. 21, 1895—Viña, Chusgon, and Huamachuco, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 35, 1900—Cuenca, Ibarra, La Concepción, Santa Elena, and Quito, Ecuador; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 147, 1905—"Pearl Islands" (crit.); Ménégaux, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B. 6, 1911—Amboasi (Nanegal), Corazón, Tumbaco, and Riobamba, Ecuador; Rendahl, Ark. Zool., 13, No. 4, p. 28, 1920—"Pearl Islands"; Lönnberg and Rendahl, l.c., 14, No. 25, p. 17, 1922—Quito, Cumbaya, and Chaupicruz, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 355, 1927—Val de San Pedro Tingo, Ecuador.

Zenaida maculata (not *Columba maculata* Vieillot) Selater and Salvin, Proc. Zool. Soc. Lond., 1874, p. 678—Pauartambo, Cuzco, Peru; Allen, Bull. Mus. Comp. Zool., 3, p. 355, 1876—Carapata and Chililaya, Lake Titicaca, Bolivia; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 575—Guayaquil and Chimbo, Ecuador; iidem, l.c., 1884, p. 311—Cechce, Ecuador; Taczanowski, Orn. Pér., 3, p. 237, 1886—Peru (Lima, Chorillos, Huanta, Auquimarca, Cutervo, Guadalupe, Moquegua, Pauartambo); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 394—Lima and Ica, Peru; Hartert, Nov. Zool., 5, p. 503, 1898—Lake Yaguarcocha, Cayambe, and Ibarra, Ecuador.

Zenaida auriculata pallens Bangs and Noble, Auk, 35, p. 446, 1918—Sullana and Huancabamba, Dept. Piura, Peru (type, from Huancabamba, in Museum of Comparative Zoology, Cambridge, Mass.); Chapman, Bull. U. S. Nat. Mus., 117, p. 46, 1921—Santa Ana, Ollantaytambo, Huaracundo, Cuzco, and Pisac, Urubamba, Peru.

Zenaida auriculata auriculata Chubb, Ibis, 1919, p. 34—part, Ecuador (Sinche Guaranda, Riobamba, Guallabamba, Cañar, Oña, Loja) and Peru (Catacaos, Piura; Caraz, Ancachs; Trujillo, Libertad; Chosica, Lima).

Zenaida auriculata hypoleuca Chapman, Bull. Amer. Mus. N. H., 55, p. 164, 1926—Ecuador (Huigra, Riobamba, Cumbaya, Cajabamba, Santa Elena, La Plata Island, Puná Island, Jambeli, Zaruma, Lunamá, San Bartolo, Guainche, Mocha, Antisana, Pomasqui); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 257, 1930—Huánuco, Peru (crit.); Naumburg, Amer. Mus. Nov., 648, p. 15, 1933 (crit.).

Zenaidura auriculata hypoleuca Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 84, 1937 (range); Morrison, Ibis, 1939, p. 461—Yauli, Lircay, and Anco, Huancavelica, Peru.

Range.—Tropical to Temperate zone of Ecuador and Peru south to the Bolivian boundary.¹

¹ In spite of the wide vertical range, birds from different altitudes do not seem to differ in any particular characters. Peruvian and Ecuadorian specimens

Field Museum Collection.—12: Peru (Chachapoyas, Amazonas, 2; Mirador, Ancachs, 1; Macate, Ancachs, 4; Huánuco, Huánuco, 1; Menocucho, Libertad, 2; Hacienda Llagueda, 2).

Conover Collection.—18: Ecuador (Valle de Rojas, Occidente, 9; Baños, Tunguragua, Oriente, 2); Peru (Huánuco, Huánuco, 5; Chosica, Rio Rimac, 2).

****Zenaidura auriculata auriculata* (Des Murs). CHILEAN EARED DOVE.**

Peristera auriculata Des Murs, in Gay, Hist. Fis. Pol. Chile, Zool., 1, p. 381, pl. 6,¹ 1847—central provinces of Chile (type in Paris Museum); Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago (nesting habits).

Columba meridionalis (not of Latham, 1801) King, Zool. Journ., 4, No. 13, p. 92, 1828—[Straits of Magellan] (location of type unknown); Sclater, Proc. Zool. Soc. Lond., 1867, pp. 330, 339—Chile.

Columba aurita (not of Temminck) Meyen, Nov. Act. Acad. Caes. Leop.-Carol. Nat. Curios., 16, Suppl., 1, p. 99, 1834—Chile.

Zenaida aurita Darwin, Zool. Beagle, 3, Birds, p. 115, 1841—part, Valparaiso, Chile; Fraser, Proc. Zool. Soc. Lond., 11, p. 115, 1843—Chile; Yarrell, l.c., 15, p. 53, 1847—Chile (egg descr.); Des Murs, in Gay, Hist. Fis. Pol. Chile, Zool., 1, p. 378, 1847—Chile; Cassin, in Gilliss, U. S. Astr. Exp., 2, p. 191, 1855—Chile; Philippi, Anal. Univ. Chile, 31, p. 268, 1868—the whole of Chile; idem, Ornis, 4, p. 159, 1888—Atacama, Chile; MacFarlane, Ibis, 1887, p. 202—La Serena, Coquimbo, Chile; Lataste, Act. Soc. Scient. Chili, 3, p. cxv, 1893—Bureo (Chillan), Nuble, and Ninhue (Itata), Maule, Chile; Waugh and Lataste, l.c., 4, pp. lxxxvii, clxxii, 1894—Peñaflor, Santiago, and San Alfonso (Quillota), Valparaiso, Chile; Lataste, l.c., 5, pp. xxxiv, lxii, 1895—Caillihue (Vichuquen), Curicó, and Maule, Chile.

Zenaida auriculata Bonaparte, Consp. Gen. Av., 2, p. 82, 1857—Chile and Patagonia; Reichenbach, Vollst. Naturg. Tauben, p. 21, 1862—Chile and Patagonia (descr.); Pelzeln, Reise Novara, Zool., 1, (2), Vögel, p. 109, 1865—Chile; Sclater, Proc. Zool. Soc. Lond., 1867, pp. 330, 339—Chile; Salvadori, Cat. Bds. Brit. Mus., 21, p. 384, 1893—part, spec. o'-e", Chile (Santiago, Coquimbo, Rio Bueno, Rio Pilmayguen); Schalow, Zool. Jahrb., Suppl., 4, p. 671, 1898—Santiago, Chile; Salvadori, Anal. Mus. Civ. Stor. Nat. Genova, 40, p. 623, 1900—Penguin Rookery, Staten Island (Feb. 20, 1882); Arribáizaga, Anal. Mus. Nac. Buenos Aires, 8, p. 159, 1902—Lago del General Paz, Chubut; Scott and Sharpe, Rep. Princet. Univ. Exp. Patagonia, Orn., 2, (1), p. 39, 1904—Rio Chico, Santa Cruz, and Lago Blanco, Chubut; Costes, Rev. Chil. Hist. Nat., 21, p. 164, 1917—

are perfectly alike, as far as we can see. The pale buffy belly serves to separate this race from the Chilean *Z. a. auriculata*, but the character reappears, though to a lesser degree, in specimens from eastern Brazil. Chapman found the type of *Z. hypoleuca*, labeled—no doubt erroneously—as coming from the Pearl Islands, to be referable to *Z. a. pallens*, making this name a synonym of Bonaparte's earlier term.

¹ The plate may have been issued as early as 1844.

Marga-Marga, Valparaiso, Chile; Sanzin, El Hornero, 1, p. 147, 1918—Alto Verde, Mendoza; Wace, l.c., 2, p. 194, 1921—Falkland Islands (accidental); Housse, Rev. Chil. Hist. Nat., 28, p. 50, 1924—Isla La Mocha, Arauco, Chile; Gigoux, l.c., p. 85, 1924—Caldera, Atacama, Chile; Housse, l.c., 29, p. 148, 1925—San Bernardo, Santiago, Chile; Bennett, Ibis, 1926, p. 309—New Island, Falklands (May 8, 1913); Pereyra, El Hornero, 4, p. 28, 1927—San Rafael, Mendoza; Castellanos, l.c., 6, p. 23, 1935—Castillo, Tierra del Fuego.

Zenaida maculata (not *Columba maculata* Vieillot) Reed, Anal. Univ. Chile, 49, p. 565, 1877—Cauquenes, Colchagua, Chile; Sharpe, Proc. Zool. Soc. Lond., 1881, p. 9—Coquimbo, Chile; Doering, in Roca, Inf. Ofic. Exp. Rio Negro, Zool., p. 55, 1881—Rio Colorado and Rio Negro; Burmeister, Anal. Mus. Nac. Buenos Aires, 3, p. 318, 1890—Rio Chico del Chubut; Reed, Anal. Univ. Chile, 93, p. 208, 1896—Chile; Lafe, Ibis, 1897, p. 298—Hacienda Mansel, Santiago, Rio Pilmayguen, and Rio Bueno, Chile (habits); Jaffuel and Pirion, Rev. Chil. Hist. Nat., 22, p. 111, 1918—Marga-Marga, Valparaiso, Chile; Bullock, l.c., 33, p. 192, 1929—Angol, Malleco, Chile.

Zenaida auriculata auriculata Barros, Rev. Chil. Hist. Nat., 23, p. 16, 1919—Nilahue, Curicó, Chile; idem, l.c., 25, p. 171, 1921—Los Leones and Rio Blanco, Aconcagua, Chile; Paessler, Journ. Orn., 70, p. 432, 1922—Coronel, Chile (habits, eggs); Peters, Bull. Mus. Comp. Zool., 65, p. 288, 1923—Maquinchao, Puesto Horno, Huanuluan, and Bariloche (Nahuel Huapi), Rio Negro; Wetmore, Univ. Calif. Pub. Zool., 24, p. 431, 1926—Valcheta Creek, Rio Negro, and Rio Fetalefufu, Chubut; idem, Bull. U. S. Nat. Mus., 133, p. 180, 1926—part, Mendoza (Potrerillos, Tunuyán), Neuquén (Zapala), and Chile (Concon, Valparaiso); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 344, 1932—Chile (Atacama to Llanquihue); Naumburg, Amer. Mus. Nov., 648, p. 2, 1933—Chile and Mendoza (crit.); Barros, Rev. Chil. Hist. Nat., 38, p. 140, 1934—Pilay and Puerta Vieja, Peuco, O'Higgins, Chile; Bullock, l.c., 39, p. 244, 1935—Isla La Mocha, Arauco, Chile.

Zenaidura auriculata auriculata Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 85, 1937 (range).

Peristera maculata Schlegel, Mus. Pays-Bas, 4, Columbae, No. 35, p. 141, 1873—Santiago, Chile.

[*Zenaida*] *chilensis* Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, No. 20, p. 946, (for Nov. 17) 1856 (quoted as a synonym of *Z. auriculata* Des Murs).

Range.—Chile, from Atacama south to Llanquihue, and western and southern Argentina, north to the vicinity of Mendoza and the Rio Negro; accidental in Tierra del Fuego (Castillo), Staten Island (Feb. 20, 1882), and New Island, Falklands (Mar. 8, 1913).¹

¹ Specimens from Neuquén (Rio Traful, Arroytos, Mangrullo, Bajada Colorado, etc.) agree with a topotypical series in coloration and size, some individuals being just as large (wing, 151–160) as the largest Chilean birds. Three adult males from Tunuyán, Mendoza, average slightly smaller (wing, 143–148) and might just as well be referred to *Z. a. chrysauchenia*, whose distinctness does not appear to be established beyond doubt.

Additional material examined.—Chile: Santiago, 5; Desagüe, Llanquihue, 1.—Argentina, Neuquén: Rio Traful, 2; Mangrullo, 1; Arroytos, 1; Piedra Pintada, 3;

Field Museum Collection.—1: Chile (Cajón de Maipo, Santiago, 1).

Conover Collection.—20: Argentina (Tunuyán, Mendoza, 3; Rawson, Chubut, 3; Rio Gallegos, Santa Cruz, 2); Chile (Estancia Aisen, Rio Coihoiue, 1; Casa Richards, Rio Nirehuau, 4; Concepción, 1; Cauquenes, Colchagua, 4; Baños de Cauquenes, Colchagua, 1; Romero, Coquimbo, 1).

****Zenaidura auriculata chrysauchenia* (Reichenbach).¹ PARAGUAYAN EARED DOVE.**

Peristera chrysauchenia Reichenbach,² Syn. Av., Columbariae, p. [3], 1847—based on Reichenbach, Columbariae, pl. 161, fig. 1429, no locality=Brazil (location of type not stated).

Columba maculata (not Gmelin, 1789) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 367, 1818—based on "Paloma parda manchada" Azara, No. 322; Paraguay.

Zenaida virgata Bertoni, Anal. Cient. Parag., 1, No. 1, p. 24, Jan., 1901—Puerto Bertoni, Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

Columba aurita (not of Temminck) Wagler, Syst. Av., 1, fol. 16, sp. 70, 1827—Brazil and Paraguay (descr.).

Zenaida aurita Darwin, Zool. Beagle, 3, Birds, p. 115, 1841—part, Uruguay (Maldonado) and La Plata.

Bajada Colorada, 1; Lago Nahuel Huapi, 3; Caleufu, 1; Sierra de la Angostura, 1; Pantanitos, 2.

¹ *Zenaidura auriculata chrysauchenia* (Reichenbach): Very similar to *Z. a. auriculata*, of Chile, but somewhat smaller, and the vinaceous color underneath, in the male sex, generally deeper as well as more extended abdominally, leaving very little, if any, buffy color beyond that on the under tail coverts. Wing (males), 135–144 (southern Brazil), 135–147 (Paraguay), 148–149 (Uruguay), 143–148 (Argentina), 142 (Buenavista, Bolivia).

This is not a very satisfactory form. Birds from southern Brazil and Paraguay, when compared to a Chilean series, have decidedly shorter wings and tail and, in most cases, the adult males are more extensively vinaceous below with a lesser amount of buffy on the lower abdomen. However, in Uruguay and Argentina a gradual increase in size takes place, and as coloration of the under parts in the males also varies considerably, it is largely a matter of personal preference where the line between *chrysauchenia* and *auriculata* is drawn. This is especially true with birds from northwestern Argentina and Bolivia, some of which, in dimensions and color, closely approach certain Chilean individuals.

Additional material examined.—Brazil: Lagõa Santa, Minas Geraes, 2; Goyáz, 1; Cuyabá, Matto Grosso, 1; Villa Bella, Matto Grosso, 1; Itararé, São Paulo, 2; Curytiba, Paraná, 6; Rio do Boraxudo, Paraná, 2; Rio Grande do Sul, 3.—Paraguay: Cambyretá, Alto Paraná, 2.—Argentina: Buenos Aires, 4; Tapia, Tucumán, 4.

² While *Peristera chrysauchenia* was originally based upon a fairly recognizable figure of a male bird without indication of locality, there seems little doubt as to its pertaining to the smaller Brazilian race, since Bonaparte (Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 97, for Jan. 15, 1855) as well as Reichenbach (Vollst. Naturg. Tauben, p. 22, 1862), both of whom clearly distinguished it from the Chilean *Z. auriculata*, subsequently referred it to *Z. maculata* (Vieillot), a name that cannot stand on account of an earlier *Columba maculata* Gmelin. Reichenbach's term thus takes precedence over Bertoni's *Zenaida virgata*.

Zenaida maculata Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 97, for Jan. 15, 1855—Brazil and Paraguay (crit.); idem, Consp. Gen. Av., 2, p. 82, 1857 (descr.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 202, 1856—Lagõa Santa, Minas Geraes; idem, Journ. Orn., 8, p. 259, 1860—Argentina; idem, Reise La Plata St., 2, p. 197, 1861—Argentina; Reichenbach, Vollst. Naturg. Tauben, p. 21, 1862—Brazil, Paraguay, and "Porto Rico" (descr.); Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 143—Conchitas, Buenos Aires; Sternberg, Journ. Orn., 17, p. 273, 1869—Buenos Aires (nesting habits); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 55—Lagõa Santa, Minas Geraes; Pelzeln, Orn. Bras., 3, p. 276, 1870—São Paulo (Mattodentro, Ypanemá, Itararé), Paraná (Curitiba, Pitangui, Rio do Boraxudo), and Matto Grosso (Cuyabá, Cidade de Matto Grosso); Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo, Rio de Janeiro; Durnford, Ibis, 1876, p. 163—Chirilcay, 100 miles north of Buenos Aires; idem, Ibis, 1877, p. 193—Baradero, Buenos Aires; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 639—Huanchapampa, Bolivia; Gibson, Ibis, 1880, p. 8—Cape San Antonio, Buenos Aires; Dagleish, Proc. Roy. Phys. Soc. Edin., 6, p. 250, 1881—Est. de la Tala, Durazno, Uruguay; White, Proc. Zool. Soc. Lond., 1882, p. 626—Catamarca (Fuerte de Andalgá) and Buenos Aires (Monte Grande); Barrows, Auk, 1, p. 275, 1884—Concepción del Uruguay, Entre Ríos; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 85, 1884—Tandil, La Tinta, and Collongueyú, Prov. Buenos Aires; Gibson, Ibis, 1885, p. 292—Paysandú, Uruguay; Berlepsch, Journ. Orn., 35, p. 34, 1887—Rio Pilcomayo, Paraguay; Allen, Bull. Amer. Mus. N. H., 2, p. 105, 1889—Reyes(?), Bolivia; Selater and Hudson, Arg. Orn., 2, p. 141, 1889—Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 403, 1890—Córdoba; Holland, Ibis, 1890, p. 425—Est. Espartillar, Buenos Aires; Frenzel, Journ. Orn., 39, p. 123, 1891—Córdoba; Holland, Ibis, 1892, p. 209—Est. Espartillar; Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso; Aplin, Ibis, 1894, p. 202—Santa Elena and Arroyo Grande, Uruguay; Kerr, Ibis, 1901, p. 234—Villa Concepción and Chaco, Paraguay; Gibson, Ibis, 1920, p. 35—Cape San Antonio, Buenos Aires.

Zenaida auriculata (not *Peristera auriculata* Des Murs) Salvadori, Cat. Bds. Brit. Mus., 21, p. 384, 1893—part, spec. t-b', Brazil (Matto Grosso), Bolivia (Huanchapampa), and Argentina (Tucumán, Conchitas, Punta Lara, Quilmes); Koslowsky, Rev. Mus. La Plata, 6, p. 286, 1895—Chilecito, La Rioja; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 23, 1895—Colonia Risso, Paraguay; idem, l.c., 12, No. 292, p. 32, 1897—Bolivian Chaco (Aguairenda and Caiza, Tarija) and Jujuy (San Lorenzo); idem, l.c., 15, No. 378, p. 14, 1900—Urucúm, Matto Grosso; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 146, 1899—Pedras Brancas, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 399, 1899—São Paulo; idem, l.c., 4, p. 163, 1900—Cantagallo, Rio de Janeiro; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902—Rio Salí, Tucumán; Lönnberg, Ibis, 1903, p. 445—Moreno, Jujuy; Baer, Ornith., 12, p. 232, 1904—Santa Ana, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Rio Salí, Tucumán; Ihering, Cat. Faun. Braz., 1, p. 20, 1907—Iguapé and São Sebastião, São Paulo; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 192, 1910 (range in Argen-

tina, part); Chubb, Ibis, 1910, p. 60—Sapucay, Paraguay; Grant, Ibis, 1911, p. 459—Los Ynglases, Ajó, Buenos Aires; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 461, 492, 1912—Rio Paciencia, Paraná; Bertoni, Faun. Parag., p. 37, 1914—Paraguay; Hussey, Auk, 33, p. 386, 1916—La Plata; Marelli, El Hornero, 1, p. 76, 1918—Curuzú-Cuatiá, Corrientes; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Canelones, San José, Minas, Maldonado, Flores, Treinta y Tres, Rocha, Cerro Largo); Renard, l.c., 2, p. 58, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 81, 1923—La Rioja; Pereyra, l.c., 3, p. 161, 1923—Zelaya, Buenos Aires; Marelli, Mem. Min. Obr. Pub. for 1922–23, p. 599, 1924—Prov. Buenos Aires; Wilson, El Hornero, 3, p. 350, 1926—Venado Tuerto, Santa Fé; Dinelli, l.c., 4, p. 276, 1929—Tucumán (nest and eggs descr.); Castellanos, l.c., 4, p. 368, 1931—Valle de los Rerartes, Córdoba; Budin, l.c., 4, p. 403, 1931—Jujuy up to Humahuaca (2,500 meters).

Zenaida auriculata auriculata Hellmayr, Nov. Zool., 15, p. 92, 1908—Goyás City, Goyás; Hartert and Venturi, l.c., 16, p. 261, 1909—Barracas al Sud, Buenos Aires; Dabbene, El Hornero, 1, p. 31, 1917—Ilha Martín García, Buenos Aires; Chubb, Ibis, 1919, p. 34—part, Tapacari and Sucré, Bolivia; Wetmore, Bull. U. S. Nat. Mus., 133, p. 180, 1926—part, Paraguay, Buenos Aires, and Uruguay; Friedmann, Bull. Mus. Comp. Zool., 68, p. 172, 1927—San Sofia, Entre Ríos; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vogel, p. 86, 1930—Formosa (San José), Santa Fé (Est. La Germania), and Bolivia (Villa Montes, Tarija); Marelli, El Hornero, 5, p. 195, 1933—southern Buenos Aires; Laubmann, Verh. Orn. Ges. Bay., 20, p. 282, 1934—Est. La Geraldina, Santa Fé (crit.).

Zenaida auriculata virgata Naumburg, Bull. Amer. Mus. N. H., 60, p. 67, 1930—Matto Grosso (crit.); Pinto, Rev. Mus. Paul., 17, (2), p. 23, 1932—Aquidauana, Matto Grosso; Naumburg, Amer. Mus. Nov., 648, p. 5, 1933 (crit., range); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 377, 1934—Descalvados, Matto Grosso.

Zenaida auriculata noronha (not of Chubb) Pinto, Rev. Mus. Paul., 20, p. 38, 1936—Jaraguá (Faz. Bôa Vista) and Rio Meia Ponte (Inhúmas), Goyás.

Zenaidura auriculata virgata Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 85, 1937 (range).

Range.—Southern Brazil, from Rio de Janeiro, Minas Geraes, Goyás, and Matto Grosso south to Rio Grande do Sul; eastern Bolivia; northern Argentina, from the northern boundary south to Mendoza and the Rio Negro; Paraguay; Uruguay.

Field Museum Collection.—6: Uruguay (Estancia "El Corte," Maldonado, 2; Arroyo Sauce, Rocha, 1; Estancia Concordia, Soriano, 2); Bolivia (Parotani, Cochabamba, 1).

Conover Collection.—31: Brazil (Cavalcante, Rio Paraná, Goyás, 1); Bolivia (Buenavista, Santa Cruz, 3; Comarapa, Santa Cruz, 1; Pocona, Cochabamba, 2); Paraguay (Villa Rica, 4; Itapé, 1;

Horqueta, 5); Uruguay (Mercedes, Soriano, 1); Argentina (Las Vasquez, Tucumán, 1; Tapia, Tucumán, 1; Tafí Viejo, Tucumán, 2; Concepción, Tucumán, 7; Torrecita, Buenos Aires, 2).

****Zenaidura auriculata noronha* (Chubb).¹ FERNANDO NORONHA
EARED DOVE.**

Zenaida auriculata noronha Chubb,² Ibis, (11), 1, p. 36, 1919—Fernando Noronha Island, off Brazil (cotypes in British Museum examined); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 464, 1929—Maranhão (Tranqueira), Piauhý (Ibiapaba, Arára), and Bahia (Rio do Peixe, near Queimadas); Naumburg, Amer. Mus. Nov., 648, p. 5, 1933—northeastern Brazil (crit.).

Zenaida maculata (not *Columba maculata* Vieillot) Sharpe, Journ. Linn. Soc. Lond., (Zool.), 20, p. 479, 1888—Fernando Noronha (crit.).

Zenaida auriculata (not *Peristera auriculata* Des Murs) Salvadori, Cat. Bds. Brit. Mus., 21, p. 384, 1893—part, spec. b-1, n, Fernando Noronha and Ceará; Nicoll, Ibis, 1904, p. 39—Fernando Noronha; Ihering, Cat. Faun. Braz., 1, p. 20, 1907—part, Ceará and Fernando Noronha; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—Bahia (Joazeiro, Piripiri) and Piauhý (Lagôa do Parnaguá, Santo Antonio de Gilbúes); Murphy, Auk, 32, p. 49, 1915—Fernando Noronha; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará; Ihering, El Hornero, 6, p. 37, 1935—northeastern Brazil.

Zenaidura auriculata noronha Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 85, 1937 (range).

Range.—Northeastern Brazil, from interior Maranhão (Flores and Tranqueira, Rio Parnahyba), Piauhý, and Ceará south to Bahia, and the island of Fernando Noronha.

Field Museum Collection.—6: Brazil (Arára, Piauhý, 2; Ibiapaba, Piauhý, 1; Rio do Peixe, near Queimadas, Bahia, 3).

Conover Collection.—7: Brazil (Tranqueira, Maranhão, 1; Ibiapaba, Piauhý, 6).

¹*Zenaidura auriculata noronha* (Chubb): Nearest to *Z. a. chrysauchenia*, but on average smaller; anterior under parts of males decidedly paler, grayish vinaceous to light russet vinaceous rather than vinaceous-fawn; abdomen distinctly paler, entirely or for the greater part pinkish-buff to pale pinkish-buff; female hardly distinguishable. Wing, 133–144, (female) 132–136; tail, 78–89, (female) 76–86.

Birds from Piauhý and Bahia are indistinguishable, in size and coloration, from topotypical Fernando Noronha skins.

Additional material examined.—Fernando Noronha, 7.—Bahia: Piripiri (near Joazeiro), 1; Joazeiro, 1.—Piauhý: Lagôa do Parnaguá, 3; Santo Antonio de Gilbúes, 1.

²*Zenaida noronha* Gray (List Spec. Bds. Brit. Mus., 4, p. 47, 1856) and Bonaparte (Compt. Rend. Acad. Sci. Paris, 43, pp. 946, 949, for Nov. 17, 1856) are nomina nuda. Sharpe (Journ. Linn. Soc. Lond., Zool., 20, p. 479, 1890) does not adopt the name either, but calls the bird *Z. maculata*.

Zenaidura auriculata marajoensis (Berlepsch).¹ MARAJÓ EARED DOVE.

Zenaida jessieae marajoensis Berlepsch, Orn. Monatsber., 21, p. 149, Sept., 1913—Hacienda São André, Marajó Island, Pará, Brazil (type in Frankfurt Museum examined by C. E. Hellmayr).

Zenaida maculata (not *Columba maculata* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 591—Mexiana Island; Layard, Ibis, 1873, p. 395—São João, Pará (spec. examined).

Zenaida auriculata (not *Peristera auriculata* Des Murs) Salvadori, Cat. Bds. Brit. Mus., 21, p. 384, 1893—part, spec. m, o-q, Mexiana and Pará; Haggmann, Zool. Jahrb. (Syst.), 26, p. 42, 1907—Mexiana (habits).

Zenaida auriculata jessieae (not of Ridgway) Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 96, 1912—part, São João, Pará, and Marajó (Bôa Vista, Pindobal); idem, l.c., p. 122, 1912—Mexiana.

Zenaida iessiae [sic] consp. nov. Snethlage, Bol. Mus. Goeldi, 8, pp. 64, 499, 1914—Marajó (Pindobal, Livramento) and Mexiana.

Zenaida auriculata marajoensis Naumburg, Amer. Mus. Nov., 648, p. 6, 1933—Maranhão (Anil, Ilha São Luiz), Marajó (São Natal, São André, Bôa Vista), and Pará (crit.).

Zenaidura auriculata marajoensis Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 85, 1937 (range).

Range.—Northeastern Brazil, from the estuary of the Amazon (islands of Marajó and Mexiana) east through northern Pará to northern Maranhão (Anil, Ilha do São Luiz).

***Zenaidura auriculata jessieae** (Ridgway).² JESSIE'S EARED DOVE.

Zenaida jessieae (Riker MS.) Ridgway, Proc. U. S. Nat. Mus., 10, p. 527, 1888—Diamantina, near Santarém, east of the mouth of the Rio Tapajóz,

¹ *Zenaidura auriculata marajoensis* (Berlepsch): Nearest to *Z. a. noronha*, but somewhat smaller; upper surface darker brown, and under parts much deeper vinaceous, this color extending all over the abdomen and under tail coverts, both of which are distinctly buff in *Z. a. noronha*. Wing, 132–136, (female) 125–132; tail, 80–88, (female) 76–80; bill, 13–15.

This race is intermediate between *Z. a. noronha* and *Z. a. jessieae*, combining the *white* tips to the lateral rectrices of the former with the deep vinaceous under parts of the latter.

Material examined.—Brazil, Marajó: São André, 2; São Natal, 3; Bôa Vista, 1; Espírito Santo, 1.—Pará: São João, 1.—Maranhão: Anil (Ilha São Luiz), 2.

² *Zenaidura auriculata jessieae* (Ridgway): Exactly like *Z. a. marajoensis*, except that the light tips to the lateral rectrices are tinged with pinkish or pale vinaceous instead of pure white. Wing, 127½–132, (female) 130–132; tail, 85, (female) 78–83; bill, 13½–15 (from Mrs. Naumburg).

For direct comparison with the series from Marajó, the senior author had only a single adult bird taken by W. A. Schulz at Paricatuba, on the south bank of the lower Amazon west of the Rio Tapajóz, which may be distinguished by the pinkish tone of the light-colored tips to the two lateral pairs of rectrices, as claimed by Mrs. Naumburg. A single female from the north bank of the Amazon (Ereré,

Brazil (type in U. S. National Museum); Salvadori, Cat. Bds. Brit. Mus., 21, p. 389, 1893—Diamantina.

Zenaida ruficauda (not of Bonaparte) Allen, Bull. Essex Inst., 8, p. 82, 1876—Santarém.

Zenaida jessicae Riker and Chapman, Auk, 8, p. 162, 1891—Diamantina.

Zenaida auriculata jessicae Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 96 (note 6), 1912—part, Paricatuba, lower Amazon; Naumburg, Amer. Mus. Nov., 648, p. 7, 1933—lower Amazon (crit.).

Zenaida iessicae [sic] Sneath, Bol. Mus. Goeldi, 8, p. 63, 1914—Ereré, near Montalegre, Brazil.

Zenaidura auriculata jessicae Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 85, 1937 (range).

Range.—Banks of the lower Amazon and tributaries in northern Brazil (Rio Acará; Diamantina, Santarém; Paricatuba; Obidos; Ereré, near Montalegre).

Conover Collection.—13: Brazil, Pará (Villa Acará, Rio Acará, 5; Tomé-assú, Rio Acará, 1; Santarém, Rio Tapajóz, 5; Obidos, Rio Amazonas, 1; Lago Cuipeua, Rio Amazonas, 1).

****Zenaidura auriculata stenura* (Bonaparte).¹ NARROW-TAILED EARED DOVE.**

near Montalegre) has the tail-ends darker, more vinaceous, and approaches certain individuals of *stenura*.

Further material may show the inhabitants of the north bank to be not strictly referable to *jessicae*. The junior author found a series from the Rio Acará identical with topotypical examples.

¹ *Zenaidura auriculata stenura* (Bonaparte): Nearest to *Z. a. jessicae* and about the same size, but terminal portion of lateral rectrices bright vinaceous-cinnamon. Besides, the upper throat is paler (light pinkish buff to buffy white); the dorsal surface slightly paler brown, etc.

Birds from the Lesser Antilles, Venezuela, British Guiana, and the upper Rio Branco agree in coloration, showing the same latitude of individual variation, though those from the two last-named regions, by a tendency to slightly smaller dimensions, diverge in the direction of *Z. a. jessicae*. We are quite unable to separate two topotypical adult males of *Z. a. robinsoni* from Honda, Colombia. The intensity of the vinaceous under parts is exactly as in others from Venezuela (i.e., Maripa, Caura, and Barquisimeto, Lara); the gular spot is just as buffy as in the Maripa male; and the tail-ends are of the same bright vinaceous-cinnamon. One has the upper parts dark brown like the Venezuelan average, the other is paler with a fulvous tinge, but can be matched by one from the Rio Branco.

The earliest name of this dove proves to be *Z. stenura* Bonaparte based upon a specimen from Colombia, which, in 1854, was in the possession of the Verreaux brothers, who, Bonaparte tells us, promised to present it to the Paris Museum. This promise, however, was never carried out, and the type was believed to be lost until it was rediscovered by the senior author in the collections of the British Museum. Labeled in G. R. Gray's handwriting "Columbia. *Zenaida stenura* Bp.," it was purchased from Verreaux in 1855, and is entered in the Registers under the same name with "No. 55.7.10.17. Columbia." It is also duly listed by Gray in 1856 in his Catalogue of the Columbidae in the British Museum. In agreement with Bonaparte's diagnosis it is, when compared to *Z. pentheria*, indeed smaller and duller, "magis rufescens" only on the upper parts, and has much narrower

- (?) *Zenaida ruficauda* Bonaparte, Compt. Rend. Acad. Sci. Paris, **40**, No. 3, p. 97, for Jan. 15, 1855—part, spec. ex Colombia (Plée, 1826), in Paris Museum; idem, Consp. Gen. Av., **2**, p. 83, "Apr. 15, 1855" [=1857]—part (same spec.).
- Zenaida stenura* Bonaparte, Compt. Rend. Acad. Sci. Paris, **40**, No. 3, p. 98, for Jan. 15, 1855—"Columbia" (type in Verreaux Collection, now in British Museum, examined); Gray. List Spec. Bds. Brit. Mus., **4**, p. 48, 1856—"Columbia"; Bonaparte, Consp. Gen. Av., **2**, p. 84, 1857—"Columbia."
- Zenaida rubripes* Lawrence, Auk, **2**, p. 357, 1885—Grenada, Lesser Antilles (type in U. S. National Museum); Cory, Auk, **4**, p. 115, 1887—Grenada (ex Lawrence); Wells, Proc. U. S. Nat. Mus., **9**, p. 624, 1887—Glover's Island (south of Grenada) and Carriacou; Lawrence, Auk, **6**, p. 21, 1889—Grenada (crit.); Cory, Bds. W. Ind., p. 216, 1889—Grenada; Wells, Auk, **19**, p. 344, 1902—Carriacou (habits, nest and eggs).
- Zenaida ruficauda* (not of Bonaparte?) Pelzeln, Orn. Bras., **3**, p. 276, 1870—Forte do Rio Branco, Brazil (spec. examined); Robinson, Flying Trip to Tropics, p. 154, 1895—Honda, Colombia; Ihering, Cat. Faun. Braz., **1**, p. 20, 1907—part, Venezuela, Rio Branco.
- Engyptila wellsi* (not of Cory) Lawrence, Proc. U. S. Nat. Mus., **9**, p. 624, 1887—Grenada (descr. of male; cf. idem, Auk, **6**, p. 21, 1889).
- Stenuroena ruficauda* Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 284, 1890—Caracas, Venezuela.
- Zenaida jessieae* (not of Ridgway) Salvadori, Cat. Bds. Brit. Mus., **21**, p. 389, 1893—part, spec. a, Colombia.

tail-feathers. The alleged extreme attenuation of the outermost rectrix ("extima utrinque fere lineari") is due to the greater part of the inner web of the left feather having been eaten away by moths. On the corresponding rectrix of the other tail-half, where the damage is restricted to the base, the intact apical portion is not appreciably narrower than in a female from Annai (June 27, 1890). All the rectrices, however, appear to be slightly more pointed than is the rule in *rubripes*, a divergency which in view of the variation observable in this and other races would seem to be of little consequence. The type is a female (or immature bird) with very little gray suffusion at the base of the crown-feathers, and closely resembles an immature male from the River Takutu (April 18, 1887), being of the same reddish brown (near snuff brown) coloring above, but slightly darker below with the posterior under parts and tail coverts inclining to vinaceous-cinnamon rather than vinaceous-fawn, more like a female from Annai. The tail-tips are somewhat paler than in the average of *rubripes*, but the type, in that respect, is very nearly matched by two skins from British Guiana. Though doubtfully referred by Salvadori to *Z. jessieae*, it certainly does not belong with the Lower Amazonian race, as is evidenced by its much darker (vinaceous-cinnamon) crissum and much darker tail-tips (vinaceous-cinnamon above, light pinkish cinnamon below). Its measurements are: wing, 129; tail, 80; bill, 15.

A still earlier name for this form is possibly *Z. ruficauda* Bonaparte (cf. "subtus et in cervice roseo-vinacea"), but as Plée's specimen, the obvious base of his description, no longer exists in the Paris Museum, we do not consider it advisable to advocate the adoption of this name.

Additional material examined.—Lesser Antilles: Glover's Island, 2; Beauséjour Pasture, Carriacou, 8.—Trinidad: unspecified, 1.—Venezuela: Margarita Island, 1; near Cumaná, 3; Altagracia, Orinoco, 1; Ciudad Bolívar, 1; Agua Salada de Ciudad Bolívar, 1; Caicara, Orinoco, 5; Maripa, Caura, 1; Barquisimeto, Lara, 2; El Cuji, Lara, 1.—British Guiana: Annai, 3; Quonga, 6; Takutu River, 1; unspecified, 2.—Brazil: Forte do Rio Branco, 5.—Colombia: Honda, 2; Chicoral, 1; unspecified, 1.

Zenaida vinaceo-rufa (not of Ridgway) Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Grenada and Grenadines; Salvadori, Cat. Bds. Brit. Mus., 21, p. 389, 1893—British Guiana (Quonga, Takutu River, Annai); Robinson and Richmond, Proc. U. S. Nat. Mus., 18, p. 658, 1896—Porlamar, Margarita Island, Venezuela; Clark, Proc. Bost. Soc. N. H., 32, pp. 261, 304, 306, 1905—Glover's Island, Grenada, and Carriacou; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 240, 253, 1909—Margarita Island; Chubb, Bds. Brit. Guiana, 1, p. 41, 1916—Quonga, Annai, and upper Takutu Mountains; Delacour, Ibis, 1923, p. 138—Ilanos of Venezuela north of San Fernando de Apure; Davis, Ibis, 1935, p. 530—Rupununi savannah, British Guiana (nest descr.).

Zenaida ruficauda vinaceorufa Berlepsch and Hartert, Nov. Zool., 9, p. 118, 1902—Altigracia, Caicara, and Ciudad Bolívar, Orinoco, Venezuela.

Zenaida ruficauda vinaceo-rufa Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 370, 1916—part, Margarita, Grenada, Glover's Island, Carriacou, and Venezuela ("Mérida"); El Trompillo, Carabobo; Tocuyo; San Feliz; San German de Uputa; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 35, 1922—Rio Cogollo, Zulia, Venezuela (crit.).

Zenaida ruficauda robinsoni Ridgway, Proc. Biol. Soc. Wash., 28, p. 107, 1915—Honda, Magdalena River, Colombia (type in U. S. National Museum); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 351, 1916—Ciudad Bolívar, Orinoco, and Maripa, Caura, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 207, 1917—Honda and Chicoral, Magdalena Valley, Colombia (crit.).

Zenaida auriculata rubripes Naumburg, Amer. Mus. Nov., 648, p. 8, 1933—Lesser Antilles, Venezuela, British Guiana, Rio Branco, and eastern Colombia (crit.); Roberts, Trop. Agric., 11, p. 92, 1934—Caroni Swamp, Trinidad; Belcher and Smooker, Ibis, 1936, p. 2—Trinidad (Caroni Marshes) and Tobago (Scarborough) (nest and eggs).

Zenaidura auriculata rubripes Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 85, 1937 (range).

Peristera ruficauda Schlegel, Mus. Pays-Bas, 4, No. 35, Columbae, p. 143, 1873—part, spec. b, Caracas, Venezuela.

Range.—Southern Lesser Antilles (Grenada, Glover's Island, Carriacou); islands of Tobago and Trinidad; Venezuela, from the north coast, including Margarita Island, south to the Orinoco and its tributaries, west to Zulia (Rio Cogollo); British Guiana; extreme northern Brazil (upper Rio Branco);¹ and eastern Colombia in the Tropical zone of the Magdalena Valley (Honda, Chicoral).²

¹ *Zenaida maculosa* [sic] Goeldi (Ibis, 1897, p. 164—Lagõa Grande do Amapá, northern Pará) may possibly refer here. No specimens appear to have been preserved.

² While the record of *Z. ruficauda* from Remedios (on the Rio Ité, a tributary of the lower Magdalena, alt. 2,360 ft.) by Slater and Salvin (Proc. Zool. Soc. Lond., 1879, p. 543) very likely pertains to the present form, the question can only be decided by re-examination of the specimen, whose actual location is, however, unknown.

Field Museum Collection.—7: Lesser Antilles, Grenadines (Beau-séjour Pasture, Carriacou, 2); Brazil (Rio Branco, Bôa Vista, Rio Branco, 2; Serra da Lua, near Bôa Vista, Rio Branco, 3).

Conover Collection.—2: Venezuela (Rio Cogollo, Zulia, 2).

***Zenaidura auriculata vinaceo-rufa** (Ridgway).¹ CURACAO EARED DOVE.

Zenaida vinaceo-rufa Ridgway, Proc. U. S. Nat. Mus., 7, p. 176, 1884—Curaçao Island, Dutch West Indies (type in U. S. National Museum); Hartert, Ibis, 1893, pp. 304, 324, 334—Aruba, Curaçao, and Bonaire (habits); Salvadori, Cat. Bds. Brit. Mus., 21, p. 389, 1893—part, Curaçao; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 198, 205, 210, 1909—Aruba, Curaçao, and Bonaire.

Zenaida vinaceorufa Berlepsch, Journ. Orn., 40, pp. 95, 102, 1892—St. Christoffel, Curaçao (crit.); Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Curaçao.

Zenaida ruficauda vinaceorufa Hartert, Nov. Zool., 9, p. 305, 1902—Aruba, Curaçao, and Bonaire.

Zenaida ruficauda vinaceo-rufa Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 370, 1916—part, Aruba, Curaçao, and Bonaire.

Zenaida auriculata vinaceo-rufa Naumburg, Amer. Mus. Nov., 648, p. 11, 1933—Dutch West Indies (crit.).

Zenaidura auriculata vinaceorufa Peters, Condor, 36, p. 215, 1934.

Zenaidura auriculata vinaceo-rufa Peters, Bds. World, 3, p. 86, 1937 (range).

Range.—Islands of Aruba, Curaçao, and Bonaire, Dutch West Indies.

Field Museum Collection.—17: Dutch West Indies (Aruba, 4; Curaçao, 5; Bonaire, 8).

Zenaidura auriculata antioquiae (Chapman).² ANTIOQUIA EARED DOVE.

¹ *Zenaidura auriculata vinaceo-rufa* (Ridgway) is exceedingly close to *Z. a. stenura*, but separable by paler brown upper, and less deeply vinaceous under parts with nearly white instead of buffy chin-spot. Dimensions the same.

Additional material examined.—Bonaire, 3; Curaçao, 1.

² *Zenaidura auriculata antioquiae* (Chapman): Similar to *Z. a. stenura*, but much larger and upper surface decidedly darker brown. Wing, (male) 147–149, (female) 140; tail, 103–104, (female) 93; bill, 15–16.

The under parts in this form are light russet-vinaceous, the abdomen and tail coverts being nearly concolorous with the breast, precisely as in *Z. a. stenura*, and by no means cinnamomeous (Mikado brown) as in the large race of the Temperate zone of the eastern Andes (*pentheria*=*ruficauda* auct.). In size, it is intermediate between the small race of the tropics of the Magdalena Valley (*robinsoni*=*stenura*) and the Temperate East Andean form. A female from "Medellin" collected by T. K. Salmon is unquestionably referable to *antioquiae*.

The present race obviously replaces *Z. a. stenura* in the Temperate zone of the central Andes, just as *Z. a. pentheria* does in the Temperate zone of the eastern Andes.

Material examined.—Colombia: Barro Blanco, 1 (male); "Medellin," 1 (female).

Zenaida ruficauda antioquiae Chapman, Bull. Amer. Mus. N. H., 36, p. 207, 1917—Barro Blanco, central Andes, Colombia (type in the American Museum of Natural History, New York).

Zenaida ruficauda (not of Bonaparte) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 543—part, Retiro (8,000 ft.) and "Medellin," Colombia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 387, 1893—part, spec. k, "Medellin."

Zenaida auriculata antioquiae Naumburg, Amer. Mus. Nov., 648, p. 12, 1933 (crit.).

Zenaidura auriculata antioquiae Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 86, 1937 (range).

Range.—Temperate zone of the northern section of the central Andes of Colombia, in State of Antioquia (Barro Blanco, Retiro, La Ceja, "Medellin").

****Zenaidura auriculata pentheria* (Bonaparte).¹ CINNAMON-BELLIED EARED DOVE.**

Zenaida ruficauda Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 97, for Jan. 15, 1855—part, spec. ex Nova Granada in British Museum; idem, Consp. Gen. Av., 2, p. 83, "Apr. 15, 1855" [=1857]—part, same spec.; idem, Compt. Rend. Acad. Sci. Paris, 43, No. 20, p. 946, for Nov. 17, 1856 (crit.); Sclater, Proc. Zool. Soc. Lond., 24, p. 30, 1856—Bogotá; Sclater and Salvin, l.c., 1870, p. 782—Mérida, Venezuela; Wyatt, Ibis, 1871, p. 383—Ocaña, Santander, Colombia; Berlepsch, Journ. Orn., 32, p. 319, 1884—Ocaña (ex Wyatt); idem, l.c., 40, p. 96 (in text), 1892—Bogotá; Salvadori, Cat. Bds. Brit. Mus., 21, p. 387, 1893—part, Bogotá and Mérida (Venezuela).

Zenaida pentheria Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 98, for Jan. 15, 1855—"Santa Martha," Colombia (type in Paris Museum

¹ *Zenaidura auriculata pentheria* (Bonaparte) is immediately recognizable from the neighboring races by its large size; heavy bill; orange-cinnamon terminal portion of the rectrices; and by having the posterior under parts, from the lower breast to the tail coverts, decidedly rufescent, bright Mikado brown. The upper parts are hardly darker brown than in *Z. a. stenura*, and about the same shade as in *Z. a. antioquiae*. Wing, 142 (female) to 159 (male); tail, 99–110; bill, 15½–17½.

Birds from the Andes of Mérida agree well with Bogotá skins, with which Hellmayr found the type of *Z. pentheria* to be identical. The type, although ascribed by Bonaparte to Santa Marta, bears no other locality than "Colombie," and the catalogue of entry in the Paris Museum does not supply any additional information. The collector, M. Fontanier, presented to the French National Museum birds from various parts of Colombia. There is obviously no foundation for Bonaparte's statement that the specimen in question came from Santa Marta, and it is more likely to have originated in the savanna of Bogotá.

In view of the uncertainty surrounding the name *Z. ruficauda*, we prefer to employ for the east Andean Temperate zone form Bonaparte's term *pentheria*. As we learn from Bonaparte's note, in Compt. Rend. Acad. Sci. Paris, 43, p. 946, 1856, he had misapplied Gray's manuscript name *ruficauda* to another race, probably *stenura*, having found on subsequent research that the so-called "type" in the British Museum was his *Z. pentheria*. It is, however, extremely doubtful if this example has any claims to this dignity, since Bonaparte's description of *Z. ruficauda* appears to have been based in the first place upon Plée's specimen in the Paris Museum. Cf. footnote to *Z. a. stenura* (p. 491).

Additional material examined.—Colombia: Bogotá, 5; unspecified, 2.

examined by C. E. Hellmayr); idem, *Consp. Gen. Av.*, 2, p. 84, "Apr. 15, 1855" [=1857]—"Santa Martha" (descr.); Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 30, 1856—Bogotá; Gray, *List Spec. Bds. Brit. Mus.*, 4, p. 48, 1856—"New Granada and Columbia"—Bogotá.

Peristera pentheria Schlegel, *Mus. Pays-Bas*, 4, No. 35, *Columbae*, p. 142, 1873—Bogotá.

Stenuroena stenura (not *Zenaida stenura* Bonaparte) Heine and Reichenow, *Nomencl. Mus. Orn. Hein.*, p. 284, 1890—Bogotá.

Zenaida bogotensis Lawrence, *Auk*, 2, p. 358, 1885—Bogotá, Colombia (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

Zenaida ruficauda ruficauda Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 207, 1917—Bogotá savannah, Colombia (crit.); Osgood and Conover, *Field Mus. Nat. Hist., Zool. Ser.*, 12, p. 35, 1922—Páramo Tambor and La Azulita, Sierra of Mérida, Venezuela (crit.); Todd and Carriker, *Ann. Carnegie Mus.*, 14, p. 195, 1922—"Santa Marta" (crit.).

Zenaida auriculata ruficauda Naumburg, *Amer. Mus. Nov.*, 630, p. 13, 1933—eastern Andes of Colombia (crit.).

Zenaidura auriculata ruficauda Peters, *Condor*, 36, p. 215, 1934; idem, *Bds. World*, 3, p. 86, 1937 (range).

Range.—Temperate zone of the eastern Andes of Colombia and western Venezuela (Sierra of Mérida).

Conover Collection.—6: Venezuela, Mérida (Páramo Tambor, 5; La Azulita, 1).

Genus ZENAIIDA Bonaparte¹

Zenaida Bonaparte, *Geog. & Comp. List Bds. Eur. & N. Amer.*, p. 41, 1838—type, by tautonymy, *Zenaida amabilis* Bonaparte (= *Columba zenaida* Bonaparte).

Melopelia Bonaparte, *Compt. Rend. Acad. Sci. Paris*, 40, No. 3, p. 98, for Jan. 15, 1855—type, by subs. desig. (Gray, *Cat. Gen. Subgen. Bds.*, p. 100, after Apr. 6, 1855), *Columba meloda* Tschudi.

Melopeleia Reichenbach, *Vollst. Naturg. Tauben*, p. 22, 1862—emendation of *Melopelia* Bonaparte.

Zenaeda Coues, *Key N. Amer. Bds.*, p. 226, 1872—emendation of *Zenaida* Bonaparte.

**Zenaida aurita yucatanensis* Salvadori. YUCATAN ZENAIIDA DOVE.

Zenaida yucatanensis Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 384, 1893—Rio Lagartos, Yucatan (type in British Museum); Salvin and Godman, *Biol.*

¹ About the limits of this genus, cf. Peters, *Condor*, 36, pp. 213–215, 1934. An unidentifiable species, of which no specimen exists in collections, is *Zenaida(?) plumbea* Gosse (Illustr. Bds. Jamaica, pl. 85, 1849), from Jamaica. It was based on an unpublished drawing by a Mr. Robinson reproduced by Gosse, but the bird was never seen in life by the last-named naturalist. Cf. also Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 366, 1916.

Centr.-Amer., Aves, 3, p. 245, 1902—Yucatan (Rio Lagartos, Progreso and islands of Cozumel, Holbox, and Mugerres).

Zenaida amabilis (not of Bonaparte) Boucard, Proc. Zool. Soc. Lond., 1883, p. 458—Yucatan; Salvin, Ibis, 1889, p. 377—Holbox and Mugerres Islands, Yucatan.

Zenaida zenaida yucatanensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 362, 1916—coast and islands of Yucatan (monog.).

Zenaida zenaida salvadorii Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 355 (in text), 1916—new name for *Zenaida yucatanensis* Salvadori.

Zenaida aurita yucatanensis Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 86, 1937 (range).

Range.—Coast and islands of Yucatan (Silam, Progreso, Rio Lagartos; Cozumel Island; Holbox Island; Mugerres Island).

Field Museum Collection.—2: Mexico (Cozumel Island, Quintana Roo, 1; Rio Lagartos, Yucatan, 1).

**Zenaida aurita zenaida* (Bonaparte). ZENAIIDA DOVE.

Columba zenaida Bonaparte, Journ. Acad. Nat. Sci. Phila., 5, Part 1, p. 30, 1825—"southern part of Florida"—Florida keys (type in coll. of T. R. Peale, doubtless lost).

Zenaida amabilis Bonaparte, Geog. & Comp. List Bds. Eur. & N. Amer., p. 41, 1838—new name for *Columba zenaida* Bonaparte; Gosse, Bds. Jam., p. 307, 1847—Jamaica; Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 97, 1855—"Florida," Bahamas, and Cuba (crit.); Gundlach and Cabanis, Journ. Orn., 4, p. 111, 1856—Cuba (habits); Gundlach, l.c., 26, pp. 161, 186, 1878—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 346, 1878—Porto Rico; Cory, Bds. Bahamas, p. 138, 1880—Bahamas; idem, Bds. Haiti & San Dom., p. 128, 1884—Puerto Plata and Magua, Hispaniola; idem, Auk, 6, p. 32, 1889—Cayman Brac; Salvadori, Cat. Bds. Brit. Mus., 21, p. 382, 1893—Cuba (San Cristóbal, Monte Verde), Jamaica, "San Domingo," Porto Rico, St. Thomas, and Virgin Gorda; Bonhote, Ibis, 1899, p. 517—New Providence, Bahamas.

Zenaida spadicea Cory, Auk, 3, p. 498, 1886—Grand Cayman (type in coll. of C. B. Cory, now in Field Museum of Natural History); idem, Auk, 4, p. 114, 1887—Grand Cayman (descr.); idem, Bds. W. Ind., p. 215, 1889—Grand Cayman; idem, Cat. W. Ind. Bds., pp. 97, 129, 1892—Grand Cayman; Salvadori, Cat. Bds. Brit. Mus., 21, p. 383, 1893 (ex Cory); Nicoll, Ibis, 1904, p. 587—Little Cayman (crit.); Lowe, Ibis, 1909, p. 341—Little Cayman (crit.); idem, Ibis, 1911, p. 145—Grand Cayman and Little Cayman; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 362, 1916—Grand Cayman and (?) Little Cayman.

Zenaida richardsoni Cory, Auk, 4, p. 7 (in text), 1887—Little Cayman (type in coll. of C. B. Cory, now in Field Museum of Natural History); idem, Auk, 4, p. 114, 1887 (crit.); idem, Cat. W. Ind. Bds., p. 138, 1892 (crit.;=immature).

Zenaida zenaida Cory, Auk, 4, p. 113, 1887—"Antilles" (descr.); idem, Cat. W. Ind. Bds., p. 97, 1892—part, Bahamas and Greater Antilles; Scott,

Auk, 9, p. 123, 1892—Jamaica; Chapman, Bull. Amer. Mus. N. H., 4, p. 292, 1892—near Trinidad, Cuba; Field, Auk, 11, p. 123, 1894—Port Henderson, Jamaica; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 24, 1896—Dominican Republic; Riley, in Shattuck, The Bahama Islands, p. 362, 1905—Bahamas (Great Bahama, Abaco, New Providence, Andros, Eleuthera, Cat Island, Rum Cay, Watlings Island, Concepción Island, Long Island, North Caicos, Grand Caicos, East Caicos, Great Inagua); Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 357, 1909—Dominican Republic; Todd, Ann. Carnegie Mus., 7, p. 416, 1911—Great Inagua, Watlings Island, and Abaco, Bahamas.

Zenaida zenaida zenaida Bangs and Zappey, Amer. Natur., 39, p. 197, 1905—Almacigos, Isle of Pines; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 357, 1916—Bahamas, Cuba, Isle of Pines, Cayman Islands, Haiti, and Jamaica (monog., full bibliog.); Todd, Ann. Carnegie Mus., 10, p. 222, 1916—Los Indios and McKinley, Isle of Pines; Bangs, Bull. Mus. Comp. Zool., 60, p. 306, 1916—Grand Cayman, Little Cayman, and Cayman Brac (crit.); Peters, l.c., 61, p. 407, 1917—La Chorrera and Arroyo Savanna, Dominican Republic (crit.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 76, 1923—Cuba; Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 394, 1927—Mona, Desecheo, Porto Rico, Vieques, Culebra, Louis Peña, Culebrita, St. Croix, St. Thomas, St. John, Tortola, and Virgin Gorda (crit., habits, full bibliog.); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 315, 1929—San Juan, Hispaniola; Danforth, Journ. Dept. Agric. Porto Rico, 14, p. 120, 1930—St. Croix, St. Thomas, St. Jan, Tortola, Salt Island, and Virgin Gorda; Beatty, l.c., p. 144, 1930—St. Croix; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 191, 1931—Hispaniola (monog., full bibliog.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 6, 1931—Grand Cayman (crit.).

Zenaida zenaida lucida Noble, Proc. New Engl. Zool. Cl., 5, p. 191, 1915—St. Croix (type in Museum of Comparative Zoology, Cambridge, Mass.); Wetmore, Bull. U. S. Dept. Agr., 326, p. 51, 1916—Porto Rico (food); idem, Auk, 33, p. 412, 1916—Vieques; idem, Auk, 34, p. 59, 1917—Culebra, Louis Peña, and Culebrita; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 361, 1916—part, easternmost Greater Antilles (monog.); Wetmore, Auk, 35, p. 339, 1918—Desecheo Island; Struthers, Auk, 40, p. 474, 1923—Porto Rico and Desecheo; Danforth, Journ. Dept. Agric. Porto Rico, 10, p. 80, 1926—Cartagena Lagoon, Porto Rico.

Zenaida aurila zenaida Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 498, 1928—Haiti, Gonave, and Tortue; Danforth, Auk, 46, p. 366, 1929—Hispaniola; Peters, Bds. World, 3, p. 87, 1937 (range).

Range.—Florida keys (formerly), Bahamas, Cuba, Isle of Pines, Jamaica, the Cayman Islands, Hispaniola, Mona, Porto Rico, and the Virgin Islands.¹

¹ It is now generally conceded that neither *Z. spadicea*, from Grand Cayman, nor *Z. z. lucida*, of the Virgin Islands, is separable. While birds from the Cayman Islands prove to be nowise distinguishable from those of Cuba and the Bahamas, the Zenaida Dove of the Virgin Islands passes gradually, through individual variation, into *Z. a. aurila*, of the Lesser Antilles, as has been justly remarked by Peters. Whether the two specimens from St. Croix and Virgin Gorda that have

Field Museum Collection.—50: Bahamas (Nassau, New Providence, 1; Great Inagua, 2; Caicos Islands, 1); Cayman Brac, 3; Little Cayman, 8; Grand Cayman, 9; Jamaica (Priestman's River, 2); Hispaniola, Dominican Republic (La Vega, 2; Honduras, 1; Santo Domingo, 5; Magua, Seibo, 3); Puerto Rico (Mona Island, 2); Virgin Islands (Tortola, 2; Virgin Gorda, 6; St. Croix, 3).

Conover Collection.—17: Cuba (San Cristóbal, Pinar del Rio, 2; Zapata Swamp, Santa Clara, 1; Mordazo, Santa Clara, 1; Herradura, Pinar del Rio, 1; Artemisa, Pinar del Rio, 1); Isle of Pines (La Vega, 2); Virgin Islands (St. John, 2; St. Croix, 4; Tortola, 3).

***Zenaida aurita aurita** (Temminck). MARTINIQUE ZENAI'DA DOVE.

Columba aurita Temminck, in Temminck and Knip, *Les Pigeons*, 1, Les Colombes, p. 60, pl. 25, 1810—Martinique (type in coll. of Raye de Breukelerwaert, Amsterdam).

Columba castanea Wagler, *Syst. Av.*, 1, fol. 16, spec. 77, 1827—based on "Le Pigeon de la Martinique" Brisson, *Orn.*, 1, p. 103, 1760—Martinique (type in coll. of Rev. Aubry).

Zenaida martinicana Bonaparte, *Compt. Rend. Acad. Sci. Paris*, 40, No. 3, p. 97, for Jan. 15, 1855—Martinique (type in Paris Museum); idem, *Consp. Gen. Av.*, 2, p. 82, 1857—Martinique and "Bermudas" [=Barbados]; Taylor, *Ibis*, 1864, p. 171—part, Dominica; Lawrence, *Proc. U. S. Nat. Mus.*, 1, pp. 66, 196, 241, 1878—Dominica, Balliceaux Islands (near St. Vincent), and Barbuda; idem, *l.c.*, 1, pp. 275, 360, 1879—Grenada and Martinique; Sclater, *Proc. Zool. Soc. Lond.*, 1879, p. 765—Montserrat; Allen, *Bull. Nutt. Orn. Cl.*, 5, p. 169, 1880—Santa Lucia; Lister, *Ibis*, 1880, p. 43—Bequia, Balliceaux, and Grenada; Grisdale, *Ibis*, 1882, p. 492—Montserrat (habits); Cory, *Auk*, 4, p. 114, 1887—Lesser Antilles (descr.); Wells, *Proc. U. S. Nat. Mus.*, 9, p. 624, 1887—Grenada (habits); Sclater, *Proc. Zool. Soc. Lond.*, 1889, p. 326—Dominica; Cory, *Auk*, 8, p. 48, 1891—(?) St. Croix and Guadeloupe; Sclater, *Proc. Zool. Soc. Lond.*, 1892, p. 499—Anguilla; Verrill, *Trans. Conn. Acad. Sci.*, 8, p. 323, 1892—Dominica (habits); Wells, *Auk*, 19, p. 343, 1902—Carriacou.

Zenaida bimaculata (Gray MS.)¹ Bonaparte, *Compt. Rend. Acad. Sci. Paris*, 43, No. 20, p. 946, for Nov. 17, 1856—"Bermudas," errore Barbados (diag.; type in British Museum).

Columba (Zenaida) martinicana Sundevall, *Oefv. Vet.-Akad. Handl.*, 26, p. 585, 1869—St. Bartholomew.

Zenaida amabilis (not of Bonaparte) Feilden, *Ibis*, 1889, p. 489—Barbados (habits).

been referred to *Z. aurita* (cf. Wetmore, *Sci. Surv. Porto Rico & Virgin Is.*, 9, p. 398, 1923) are really stragglers from the Lesser Antilles, or should be classed as individual mutants of the resident form, is, of course, hard to decide.

¹*Zenaida bimaculata* Bonaparte (*Compt. Rend. Acad. Sci. Paris*, 40, No. 3, p. 97, for Jan. 15, 1855—"Bermudas") and Gray (*List Spec. Bds. Brit. Mus.*, 4, p. 47, 1856—Barbados), quoted in the synonymy of this species, are nomina nuda.

Zenaida castanea Cory, Cat. W. Ind. Bds., pp. 97, 138, 1892—(?)St. Croix, St. Eustatius, Barbuda, Antigua, Montserrat, Guadeloupe, Dominica, Martinique, Santa Lucia, St. Vincent, Bequia, Canouan, Unión, Carriacou, and Grenada (crit.).

Zenaida aurita Salvadori, Cat. Bds. Brit. Mus., 21, p. 380, 1893—Anguilla, Montserrat, Dominica, Barbados, Mustique, and Grenada; Nicoll, Ibis, 1904, p. 563—Carriacou; Lowe, Ibis, 1909, p. 306—Barbados; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 363, 1916—Lesser Antilles (Anguilla to Grenada and Barbados) and (?)Greater Antilles (St. Croix and Virgin Gorda).

Zenaida zenaida aurita Riley, Smiths. Misc. Coll., 47, p. 281, 1904—Barbuda and Antigua (variation); Clark, Proc. Bost. Soc. N. H., 32, p. 260, 1905—Barbados, St. Vincent, Grenadines, and Grenada; Noble, Bull. Mus. Comp. Zool., 60, p. 374, 1916—Goyave, Guadeloupe; Danforth, Auk, 51, p. 361, 1934—Antigua and neighboring islets.

Zenaida aurita aurita Peters, Auk, 44, p. 535, 1927—Anguilla (crit.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 528, 1928—Barbados and Santa Lucia; Danforth, Auk, 47, p. 46, 1930—St. Martin and St. Eustatius; idem, Monog. Univ. Porto Rico, Ser. B, No. 3, p. 40, 1935—Santa Lucia; idem, Trop. Agric., 13, p. — [Sept., p. 3], 1936—St. Kitts and Nevis; Peters, Bds. World, 3, p. 87, 1937 (range).

Zenaida zenaida lucida (not of Noble) Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 361, 1916—part, Lesser Antilles (Sombrero, St. Eustatius, and Antigua).

Range.—Lesser Antilles (islands of Sombrero, Anguilla, St. Martin, St. Bartholomew, Barbuda, St. Eustatius, St. Kitts, Nevis, Antigua, Montserrat, Guadeloupe, Dominica, Martinique, Santa Lucia, St. Vincent, Barbados, Grenada, and the Grenadines).¹

Field Museum Collection.—22: Lesser Antilles (Anguilla, 2; St. Eustatius, 2; Antigua, 7; Guadeloupe, 1; Martinique, 1; Santa Lucia, 9).

Conover Collection.—1: Lesser Antilles (Antigua, 1).

****Zenaida asiatica mearnsi* (Ridgway). WESTERN WHITE-WINGED DOVE.**

Melopelia asiatica mearnsi Ridgway, Proc. Biol. Soc. Wash., 28, p. 107, 1915—five miles north of Nogales, Arizona (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 7, p. 382, 1916 (monog., full bibliog.); Townsend, Bull. Amer. Mus. N. H., 48, p. 13, 1923—Lower California (Cape San Lucas, San José del Cabo, La Paz) and Sonora (Tiburón Island); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 7, 1927—Sinaloa (Labrados), Nayarit (San Blas), and Tres Marias (Maria Madre); Grinnell, Univ.

¹ Birds from the northernmost Lesser Antilles (Anguilla, Barbuda, St. Eustatius, Antigua) are variously intermediate to *Z. a. zenaida*, as has already been pointed out by Cory (Cat. W. Ind. Bds., p. 138, 1892) and more recently by Peters (Auk, 44, p. 535, 1927). About the reported occurrence of the present race in the Virgin Islands (St. Croix and Virgin Gorda), cf. footnote, pp. 497–498.

Calif. Pub. Zool., 32, p. 105, 1925—Lower California; van Rossem, Trans. San Diego Soc. N. H., 6, p. 248, 1931—Sonora (Pesqueira, Guaymas, El Alamo); idem, l.c., 7, p. 135, 1932—Tiburón Island, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 434, 1934—Sonora (Guaymas, Alamos, Oposura) and Chihuahua (La Trompa); Griscom, l.c., 75, p. 372, 1934—Chilpancingo, Guerrero.

Zenaida asiatica mearnsi Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 87, 1937 (range).

Melopelia leucoptera (not *Columba leucoptera* Linnaeus) Salvadori, Cat. Bds. Brit. Mus., 21, p. 392, 1893—part, spec. from Arizona, Lower California, Sonora, Nuevo Leon, Tepic, Jalisco, Zacatecas, Guerrero, and Sinaloa; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 245, 1902—part, west Mexican, Arizona, New Mexico, and Californian localities.

Range.—Southwestern New Mexico, southern Arizona, southeastern California, and southern Lower California south through western Mexico to Guerrero and Puebla, and the Tres Marias Islands; accidental in Colorado, Washington, and British Columbia (Vancouver Island).

Field Museum Collection.—16: Arizona (Tucson, Pima County, 2; Santa Rita Mountains, Pima County, 1; Calabasas, Santa Cruz County, 2); Mexico (Igualá, Guerrero, 7; Cabo San Lucas, Lower California, 1; Cerro Blanco, Sonora, 3).

Conover Collection.—15: Arizona (Tucson, Pima County, 4); Mexico (San José del Cabo, Lower California, 3; 30 miles south of La Paz, Lower California, 1; Tecoripa, Sonora, 6; Mazatlan, Sinaloa, 1).

****Zenaida asiatica asiatica* (Linnaeus). WHITE-WINGED DOVE.**

Columba asiatica Linnaeus, Syst. Nat., 10th ed., 1, p. 163, 1758—based on "The Brown Indian Dove" Edwards, Nat. Hist. Bds., 2, p. 76, pl. 76, and "*Columba subfusca media*" Browne, Civ. and Nat. Hist. Jamaica, p. 468; "in Indiis"=Jamaica.

Columba leucoptera Linnaeus, Syst. Nat., 10th ed., 1, p. 164, 1758—based on the same references.

Columba trudeauii Audubon, Birds Amer., (8vo ed.), 7, p. 352, (pl. 496), 1844—Texas (type now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 17, 1899).

Melopelia leucoptera Salvadori, Cat. Bds. Brit. Mus., 21, p. 392, 1893—part, Jamaica, Texas (Hidalgo, Brownsville), Tamaulipas (Tampico), Oaxaca (Juchatengo, Tehuantepec), Yucatan (Izamal, Cozumel Island, Mugeris Island), Guatemala, El Salvador (La Libertad), and Honduras (San Pedro); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 245, 1902—part, eastern Mexico, Guatemala, Honduras, Salvador, and Nicaragua; Riley, in Shattuck, The Bahama Islands, p. 362, 1905—Great Inagua, Bahamas.

Melopelia asiatica asiatica Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 378, 1916—part, West Indies, lower Rio Grande Valley, Texas, and through

eastern Mexico to Guatemala, Honduras, and Nicaragua (monog., full bibliog.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 77, 1923—eastern Cuba; Wetmore and Swales, Bull. U. S. Nat. Mus., 135, p. 197, 1931—Hispaniola (monog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 112, 1932—Guatemala (Sacapulas, Antigua, Chanquevelje, Panajachel, Progreso, Hacienda California); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 188, 1938—San Salvador, Lake Chanmico, San Sebastián, Puerto del Triunfo, Rio Goascorán, Volcan de San Miguel, Los Esesmites, Rio San Miguel, and Divisadero, El Salvador.

Zenaida asiatica asiatica Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 87, 1937 (range).

Range.—Southern Bahamas (Great Inagua Island); Greater Antilles (Jamaica, Cuba, Hispaniola); Old Providence Island; lower Rio Grande Valley, Texas, and south through eastern Mexico, Guatemala, Honduras, and El Salvador to Nicaragua;¹ casual in Florida, Louisiana, and south-central Texas (San Antonio, Kerrville, Boerne); accidental in New York (Long Island).

Field Museum Collection.—21: Bahamas (Willow Pond, Great Inagua, 1); Jamaica (Priestman's River, 2); western Caribbean (Old Providence, 5); Hispaniola, Dominican Republic (Puerto Plata, 1; San Cristóbal, Santo Domingo, 1; "La Laguneta," Santo Domingo, 1); Texas (Brownsville, Cameron County, 3); Mexico (San Felipe, Yucatan, 1); Guatemala (Tecpam, Chimaltenango, 1; Mexico, Sacatepéquez, 1; El Rancho, Zacapa, 1); El Salvador (San Sebastián, La Paz, 1; Los Esesmites, Chalatenango, 1; Volcan San Miguel, San Miguel, 1).

Conover Collection.—7: Guatemala (El Rancho, Dept. Zacapa, 1); Honduras (Monte Redondo, near Archaga, Tegucigalpa, 6).

****Zenaida asiatica australis* (Peters).² COSTA RICAN WHITE-WINGED DOVE.**

Melopelia asiatica australis Peters, Auk, 30, p. 372, 1913—Cerro Santa María, Costa Rica (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 163, 1930); Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Guanacaste, Costa Rica, and Agua Dulce, Panama.

¹ Continental specimens (lower Rio Grande Valley, eastern Mexico, and Guatemala) do not seem to be separable from those of the West Indies.

² *Zenaida asiatica australis* (Peters): Similar to *Z. a. mearnsi*, but back, scapulars, and tertials somewhat darker and richer brown; foreneck and chest more reddish, wood-brown rather than light drab to hair brown. Wing, 158–165, (female) 158.

Six specimens from Bebedéro, Costa Rica, tend to support the claims of this form to recognition. According to Griscom, it reappears at Agua Dulce, Panama.

Melopelia leucoptera (not *Columba leucoptera* Linnaeus) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 139, 1868—San José, Costa Rica; Frantz, Journ. Orn., 17, p. 372, 1869—Costa Rica; Nutting, Proc. U. S. Nat. Mus., 5, p. 408, 1882—La Palma de Nicoya; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—San Mateo, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 392, 1892—part, spec. vⁿ, Costa Rica; Underwood, Ibis, 1896, p. 447—Miravalles, Bebedéro, and Bagáces, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 245, 1902—part, Costa Rica (San José, La Palma, San Lucas, Bebedéro, Bagáces, Miravalles).

Melopelia asiatica (not *Columba asiatica* Linnaeus) Carriker, Ann. Carnegie Mus., 6, p. 397, 1910—Costa Rica (Santo Domingo de San Mateo, Bolson, Tenorio, Cerro de Santa María, Miravalles, Pózo Azul de Pirris, Guanacaste, Turrúcares, Bebedéro).

Melopelia asiatica asiatica Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 378, 1916—part, Costa Rica.

Zenaida asiatica australis Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 87, 1937 (range).

Range.—Pacific coast region of Costa Rica from Guanacaste to Nicoya (rarely wandering to the plateau region, vicinity of San José) and again at Agua Dulce, Panama.

Conover Collection.—5: Costa Rica (Punta Piedra, Guanacaste, 5).

****Zenaida asiatica meloda* (Tschudi).¹ PERUVIAN WHITE-WINGED DOVE.**

Columba meloda Tschudi, Arch. Naturg., 9, (1), p. 385, 1843—"in regionibus calidris praecipue declivitatibus Antium occidentalis," Peru (type in Neuchâtel Museum); idem, l.c., 10, (1), p. 305, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 276, pl. 29, 1846—western slope of the Peruvian Andes; Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 245—Tumbez, Peru (eggs descr.); Philippi, Ornith., 4, p. 159, 1888—Suca [Rio Camarones, Tarapacá], Chile.

Zenaida souleyetiana Des Murs, in Gay, Hist. Fís. Pol. Chile, Zool., 1, p. 380, pl. 6, 1847—Chile (type in Paris Museum examined).

Melopelia meloda Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 98, for Jan. 15, 1855 (crit.); idem, Consp. Gen. Av., 2, p. 81, 1857—Tacna, Chile (descr.); Sclater, Proc. Zool. Soc. Lond., 1867, pp. 330, 338—Chile; idem, l.c., 1886, p. 402—Pica, Tarapacá, Chile; Taczanowski, Orn. Pér., 3, p. 241, 1886—coast of Peru from Lima to the Ecuadorian boundary (habits); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 394—Lima and Ica, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 395, 1893—Pica, Tarapacá; Reed, Anal. Univ. Chile, 93, p. 209, 1896—Tarapacá; Lane, Ibis, 1897, p. 11—Pica, Tarapacá; Chubb, Ibis, 1919, p. 36—Trujillo,

¹*Zenaida asiatica meloda* (Tschudi) may be distinguished from the other races by somewhat stronger, stouter bill, and decidedly gray (instead of pure white) tips to the rectrices. Wing, 160–166, (female) 153–158; tail, 120–126, (female) 110; bill, 20–22.

Additional material examined.—Ecuador (unspecified), 1.—Peru: Chepen, 1; Trujillo, 1; Lima, 1; Ica, 1.—Chile: Pica, Tarapacá, 1; unspecified, 1.

Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 165, 1926—Santa Elena and Puná Island, Ecuador.

Melopelia asiatica meloda Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 347, 1932—Tarapacá and Tacna, Chile (crit.); Philippi, El Hornero, 6, p. 235, 1936—Valle de Asapa, Tacna, Chile.

Zenaida asiatica meloda Peters, Condor, 36, p. 215, 1934; idem, Bds. World, 3, p. 88, 1937 (range).

Range.—Arid Tropical zone of southwestern Ecuador (Santa Elena; Puná Island) and Pacific Peru to extreme northern Chile (provinces of Tacna and Tarapacá).

Field Museum Collection.—1: Peru (Menocucho, Libertad, 1).

Conover Collection.—2: Peru (Lima, 2).

Genus NESOPELIA Sundevall

Nesopelia Sundevall, Meth. Nat. Av. Disp. Tent., p. 99, 1873—type, by orig. desig., *Zenaida galapagoensis* Gould.

**Nesopelia galapagoensis galapagoensis* (Gould). GALAPAGOS DOVE.

Zenaida galapagoensis Gould, in Darwin, Zool. Beagle, 3, Birds, Part 15, p. 115, pl. 46, March, 1841—Galapagos Archipelago (cotype originally in coll. of Zoological Society of London, subsequently in coll. of T. C. Eyton, now in British Museum; cf. Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 67, 1931); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 323—Indefatigable and Bindloe; Ridgway, Proc. U. S. Nat. Mus., 12, p. 116, 1890—Indefatigable, Duncan, James, and Hood Islands.

Columbi-Gallina galapagoensis Prévost and Des Murs, Zool. Voy. Vénus, Atlas, Ois., pl. 8, 1846; iidem, l.c., p. 270, 1849—Charles Island (descr.).

Columba (Zenaida) galapagensis Sundevall, Proc. Zool. Soc. Lond., 1871, p. 125—James Island.

Peristera galapagoensis Schlegel, Mus. Pays-Bas, 4, No. 35, Columbae, p. 140, 1873—Galapagos.

Zenaida galapagensis Salvin, Trans. Zool. Soc. Lond., 9, p. 499, 1876—Charles, Indefatigable, Bindloe, and James Islands (descr.).

Nesopelia galapagoensis Salvadori, Cat. Bds. Brit. Mus., 21, p. 390, 1893—Indefatigable and Bindloe; Ridgway, Proc. U. S. Nat. Mus., 19, p. 614, 1896—Albemarle, Duncan, Charles, Hood, Chatham, Indefatigable, James, Tower, and Bindloe (monog.); Gifford, Proc. Calif. Acad. Sci., (4), 2, pp. 6, 111, 1913—part, Abingdon, Albemarle, Barrington, Bindloe, Charles, Chatham, Daphne, Duncan, Gardner-near-Charles, Gardner-near-Hood, Hood, Indefatigable, James, Jervis, Narborough, Seymour, and Tower (habits, meas.).

Nesopelia galapagoensis galapagoensis Rothschild and Hartert, Nov. Zool., 6, p. 183, 1899—Albemarle, Duncan, Charles, Hood, Chatham, Indefatigable, James, Tower, Bindloe, Jervis, Abingdon, Narborough, and Gard-

ner (crit.); iidem, l.c., 9, p. 411, 1902—Barrington, Daphne, and Seymour (crit., habits, nest and eggs); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 263, 1904—Charles, Hood, Chatham, Barrington, Indefatigable, Duncan, Jervis, James, Albemarle, Narborough, Abingdon, Bindloe, and Tower (habits, nest, and eggs); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 373, 1916 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 67, 1931 (range; note on type); Peters, Bds. World, 3, p. 88, 1937 (range).

Range.—Galapagos Archipelago (Abingdon, Bindloe, Tower, James, Albemarle, Narborough, Jervis, Duncan, Daphne, Seymour, Indefatigable, Barrington, Chatham, Charles, Champion-near-Charles, Gardner-near-Charles, Hood, and Gardner-near-Hood Islands).¹

Field Museum Collection.—12: Galapagos Islands (Academy Bay, Indefatigable Island, 6; Mangrove Point, Narborough Island, 1; Tower Island, 3; Hood Island, 1; Champion-near-Charles, 1).

Conover Collection.—4: Galapagos Islands (Narborough Island, 1; Indefatigable Island, 1; Gardner-near-Hood Island, 1; Webb's Cove, Albemarle Island, 1).

***Nesopelia galapagoensis exsul* Rothschild and Hartert.² GREATER GALAPAGOS DOVE.**

Nesopelia galapagoensis exsul Rothschild and Hartert, Nov. Zool., 6, p. 184, Aug., 1899—Culpepper and Wenman Islands, Galapagos (type, from Culpepper, in Tring Collection, now in the American Museum of Natural History, New York; cf. Hartert, Nov. Zool., 34, p. 9, 1927); Snodgrass and Heller, Proc. Wash. Acad. Sci., 5, p. 263, 1904—Wenman and Culpepper (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 375, 1916 (monog.); Swarth, Occ. Pap. Calif. Acad. Sci., 18, p. 67, 1931—Wenman and Culpepper; Peters, Bds. World, 3, p. 88, 1937 (range).

Nesopelia galapagoensis (not *Zenaida galapagoensis* Gould) Gifford, Proc. Calif. Acad. Sci., (4), 2, pp. 6, 111, 1913—part, Culpepper and Wenman Islands (meas.).

Range.—Wenman and Culpepper Islands, Galapagos Archipelago.

Genus *SPILOPELIA* Sundevall

Spilopelia Sundevall, Meth. Nat. Av. Disp. Tent., p. 100, 1873—type, by subs. desig. (Sundevall, l.c., p. 186), *Columba tigrina* Temminck.

***Spilopelia chinensis chinensis* (Scopoli): CHINESE SPOTTED DOVE.**

Columba chinensis Scopoli, Del. Flor. et Faun. Insub., 2, p. 94, 1786—based on "Tourterelle grise, de la Chine" Sonnerat, Voy. Indes, 2, p. 176, pl. 102; China.

¹ Twenty-five additional specimens examined by the senior author.

² *Nesopelia galapagoensis exsul* Rothschild and Hartert differs from the nominate race by considerably larger size and slightly darker coloration. Three specimens from Culpepper examined by Hellmayr.

Range.—Eastern China from Canton to Shanghai, Formosa, and Hainan. Introduced and naturalized about Los Angeles, California.¹

[Genus **STREPTOPELIA** Bonaparte

Streptopelia Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 17, for Jan. 3, 1855—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 150, after Apr. 6, 1855), *Columba risoria* Linnaeus.

Streptopelia risoria (Linnaeus). RINGED TURTLE-DOVE.

Columba risoria Linnaeus, Syst. Nat., 10th ed., 1, p. 165, 1758—"in India."

Streptopelia risoria Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 386, 1916 (monog.).

Range.—Native range unknown, but domesticated throughout the world. Naturalized about Los Angeles, California; also recorded (probably escaped cage-birds) from Cuba, Haiti, Jamaica, and St. Bartholomew, Antilles.]

Genus **SCARDAFELLA** Bonaparte

Scardafella Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 24, Jan., 1855—type, by orig. desig., *Columba squamosa* Temminck.

Micropelia Heine, in Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 283, 1890—new name for *Scardafella* Bonaparte.

***Scardafella squammata squammata** (Lesson). SCALED DOVE.

Columba squamosa (not of Bonnaterre, 1792) Temminck and Knip, Les Pigeons, 1, Colombes, p. 127, pl. 59, 1810—"dans le territoire de Bahin [sic] au Brésil," sc. Bahia, Brazil (type in Paris Museum); Temminck, Hist. Nat. Pige. Gall., 1, pp. 336, 484, 1813—Bahia; Wied, Reise Bras., 2, pp. 160, 232 (8vo ed., p. 231), 1821—Barra da Vareda (Rio Pardo) and Os Possões (near Conquista), Bahia; Wagler, Syst. Av., 1, fol. 17, sp. 104, 1827—Brazil (descr.); Wied, Beitr. Naturg. Bras., 4, (2), p. 469, 1883—Bahia and Minas Geraes.

Columba squammata Lesson, Traité d'Orn., livr. 6, p. 474, Feb., 1831—based on Temminck and Knip, Les Pigeons, 1, pl. 59.

Columbula squamosa Burmeister, Syst. Uebers. Th. Bras., 3, p. 298, 1856—Fazenda Carrancas, southwest of Lagõa Santa, Minas Geraes; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 55—São Paulo (Franca) and Minas Geraes (Paracatú, Rio São Francisco, Curvelo, Fazenda Carrancas, Lagõa dos Coxes, Sete Lagõas, Taboleira Grande).

Scardafella squamosa Bonaparte, Consp. Gen. Av., 2, p. 85, "1854" [=1857]—Brazil; Pelzeln, Orn. Bras., 3, p. 277, 1870—São Paulo (Irisanga), Goyáz (Sitio do Bahú, Fazenda José Dias), and Minas Geraes; Forbes, Ibis, 1881, p. 356—Parahyba (outskirts of Parahyba) and Pernambuco (road from Macuca to Garanhuns); Salvadori, Cat. Bds. Brit. Mus., 21, p. 464, 1893—

¹ Cf. Wyman, Calif. Fish and Game, 7, No. 3, p. 180, 1921.

part, spec. d-m, Brazil (Pelotas, Rio Grande do Sul [errore]),¹ Bahia, Pernambuco, José Dias, Ceará); Ihering, Rev. Mus. Paul., 3, p. 400, 1899—São Paulo; Nicoll, Ibis, 1904, p. 40—Bahia; Ihering, Cat. Faun. Braz., 1, p. 21, 1907—São Paulo (Rincão, Jaboticabal, Baurú, São José do Rio Pardo, Caconde) and Bahia; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—Bahia (Serra de Solidade and above Joazeiro); Snethlage, Bol. Mus. Goeldi, 8, p. 64, 1914—part, Brazil; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 48, 68, 1926—Ceará and Maranhão (São Bento).

Geopelia squamosa Schlegel, Mus. Pays-Bas, Columbae, p. 133, 1873—part, spec. 1, Brazil.

Scardafella r[idgwayi] brasiliensis Beebe, Zoologica (N.Y.), 1, No. 1, p. 21, fig. 5, c, 1907—coast of Brazil, south at least to Bahia (no type or type locality specified);² Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 389 (in key), 1916—Brazil.

Scardafella squammata squammata Hellmayr, Nov. Zool., 15, p. 92, 1908—Goyáz (Goyáz) and Minas Geraes (Rio Jordão, Prov. Araguay); idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 464, 1929—Goyáz (Philadelphia, lower Tocantins), Maranhão (Codó, Cocos; São Francisco, Alto Parnahyba), Piauí (Ibiapaba, Deserto, Arára), and Ceará (Juá, near Iguatú; Quixada) (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 68, 1930—Piraputanga, Matto Grosso; Laubmann, Anz. Orn. Ges. Bay., 2, p. 289, 1933—Paraguay (Nueva Germania; Zanja Moroti, Apa Hills); Pinto, Rev. Mus. Paul., 17, (2), p. 801, 1932—Porto Tibiriça, Rio Paraná, São Paulo; idem, l.c., 19, p. 63, 1935—Bahia (Madre de Deus, Cahype, Bomfim, Cidade da Barra); idem, l.c., 20, p. 38, 1936—Fazenda Thomé Pinto, Rio das Almas, Goyáz; Peters, Bds. World, 3, p. 103, 1937 (range).

Scardafella squammata cearae Cory, Field Mus. Nat. Hist., Zool. Ser., 12, p. 6, 1917—Quixada, Ceará, Brazil (type in Field Museum of Natural History).

Scardafella brasiliensis Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 117, 1926—Invernadinha, Paraná.

Scardafella squamata Pinto, Rev. Mus. Paul., 17, (2), p. 711, 1932—Sant' Anna do Paranhayba, Matto Grosso.

Range.—Tableland of Brazil, from Maranhão, Piauí, and Ceará south to western Minas Geraes, São Paulo, Paraná (Invernadinha, Faz. Morungaba), and Matto Grosso (Piraputanga, Sant' Anna do Paranhayba), and Paraguay.³

Field Museum Collection.—24: Brazil (unspecified, 1; Macaco Secco, Bahia, 3; São Marcello, Bahia, 1; Quixada, Ceará, 5; Juá,

¹ Cf. Ihering, Annuario Est. Rio Grande do Sul, 16, p. 146 (sub No. 297), 1899.

² Though no description is given, the figure 5, c, taken from a wild-shot Brazilian example, is quite recognizable as to race.

³ There is no appreciable local variation in this form.

Additional material examined.—Bahia: Lamarão, 1; Joazeiro, 2; Solidade, Rio São Francisco, 1; unspecified, 2.—Minas Geraes: Rio Jordão, Prov. Araguay, 2; Agua Suja, near Bagagem, 2.—Goyáz: Sítio do Bahú, 1; Fazenda José Dias, 2; Goyáz, 9.—São Paulo: Irisanga, 2.

near Iguatú, Ceará, 4; Codó, Cocos, Maranhão, 1; São Francisco, Maranhão, 1; Ibiapaba, Piauhý, 1; Arára, Piauhý, 1; Rio das Velhas, Lagõa Santa, Minas Geraes, 2; Piraputanga, Matto Grosso, 2; Fazenda Morungaba, Paraná, 2).

Conover Collection.—21: Brazil (Ibiapaba, Piauhý, 5; Arára, Piauhý, 1; Deserto, Piauhý, 1; Codó, Cocos, Maranhão, 1; Philadelphia, Goyáz, 1; Cavalcanti, Goyáz, 1; Veadeiros, Goyáz, 1; Vaccaria, Matto Grosso, 2); Paraguay (Villa Rica, 2; Horqueta, 1; east side of Paraguay River, 1; Capitan Bado, Cerro Amambay, 4).

***Scardafella squammata ridgwayi** Richmond.¹ RIDGWAY'S
SCALED DOVE.

Scardafella ridgwayi Richmond, Proc. U. S. Nat. Mus., 18, p. 660, 1896—Margarita Island, Venezuela (type in U. S. National Museum); Forbes and Robinson, Bull. Liverpool Mus., 2, p. 141, 1900—Cumaná, Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 166, 1901—mouth of San Julián Valley, east of La Guaira, Venezuela; Berlepsch and Hartert, Nov. Zool., 9, p. 119, 1902—Ciudad Bolívar, Altigracia, and Caicara, Orinoco River, Venezuela; Clark, Auk, 19, p. 261, 1902—Margarita Island; Lowe, Ibis, 1907, p. 551—Margarita Island; Berlepsch, Nov. Zool., 15, p. 295, 1908—Cayenne (ex Schlegel); Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 240, 253, 1909—Margarita Island; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 191, 1913—Caño Corosal, Orinoco Delta Superior, Venezuela; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 36, 1922—Altigracia, Maracaibo, Rio Aurare, and Encontrados, Zulia, Venezuela.

Columba striata (not of Linnaeus, 1766) Jacquin, Beytr. Gesch. Vögel, p. 34, 1784—part, Venezuela; Gmelin, Syst. Nat., 1, (2), p. 788, 1789—part, Venezuela.

Chamaepelia squamosa (not *Columba squamosa* Temminck) Taylor, Ibis, 1864, p. 94—Ciudad Bolívar, Venezuela.

Geopelia squamosa Schlegel, Mus. Pays-Bas, Columbæ, p. 133, 1873—part, spec. 2-3, Cayenne and Caracas.

Scardafella squamosa Salvin and Godman, Ibis, 1880, p. 178—Valencia, Santa Marta, Colombia; Allen, Bull. Amer. Mus. N. H., 4, p. 56, 1892—Carúpano, Venezuela; Salvadori, Cat. Bds. Brit. Mus., 21, p. 464, 1893—part, spec. n-p, Valencia, Colombia, and Trinidad; Phelps, Auk, 14, p. 366, 1897—Cumaná, Venezuela; Allen, Bull. Amer. Mus. N. H., 13, p. 129, 1900—Valencia.

¹ *Scardafella squammata ridgwayi* Richmond: Similar to the nominate race, but with stouter, generally also longer bill; upper parts decidedly brighter, more buffy brown with wider black edges; foreneck deeper vinaceous-buff; black edges on breast and belly as a rule somewhat broader.

Birds from continental Venezuela agree with Margarita topotypes.

Additional material examined.—Venezuela: Margarita Island, 4; plain of Cumaná, 10; Ciudad Bolívar, Orinoco, 6; Altigracia, Orinoco, 6.

Scardafella squammata ridgwayi Hellmayr, Nov. Zool., 15, p. 93, 1908 (char., range); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 354, 1916—Orinoco Valley (nest descr.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 194, 1922—Rio Hacha, Dibulla, and Gaira, Colombia; Darlington, Bull. Mus. Comp. Zool., 71, p. 379, 1931—near Sevilano and Ciénaga, Magdalena, Colombia; Peters, Bds. World, 3, p. 103, 1937 (range).

Scardafella ridgwayi ridgwayi Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 389 (in key), 1916—Colombia and Venezuela.

Scardafella squammata ridgwayi Belcher and Smooker, Ibis, 1936, p. 3—Toco, Trinidad (Oct. 26, 1929).

Range.—Arid Tropical zone of northern Colombia (Santa Marta region) and Venezuela south to the Orinoco-Caura basin; Margarita Island; Trinidad (visitant); also recorded from Cayenne.

Field Museum Collection.—28: Venezuela (Maracay, Aragua, 4; Lake Valencia, Aragua, 1; Nueva Esparta, Margarita Island, 1; Porlamar, Nueva Esparta, Margarita Island, 14; Maracaibo, Zulia, 5; Encontrados, Zulia, 1; Rio Aurare, Zulia, 2).

Conover Collection.—4: Venezuela (Altigracia, Zulia, 2); Colombia (Ciénaga, Santa Marta, 2).

**Scardafella squammata inca* (Lesson). INCA DOVE.

Chamoepelia inca Lesson, Oeuvr. Buffon, éd: LeVêque, 20 (Descr. Mammif. Ois.), p. 211, 1847—Mexico (location of type not stated).

Scardafella squamosa (not *Columba squamosa* Temminck) Baird, Rep. Pac. R. R. Surv., 9, p. 605, 1858—Caderyta, Nuevo León, Mexico.

Scardafella inca Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 24, 1855—Mexico (descr.); Sclater, Proc. Zool. Soc. Lond., 24, p. 309, 1856—Córdoba, Vera Cruz; Moore, l.c., 27, p. 61, 1859—San Pedro, Honduras, and Petén, Guatemala; Sclater, l.c., p. 391, 1859—Oaxaca, Mexico (egg descr.); Sclater and Salvin, Ibis, 1859, p. 223—San Pedro and Petén (ex Moore); iidem, Ibis, 1860, p. 45—Dueñas, Guatemala; Taylor, Ibis, 1860, p. 227—Honduras; Sclater, Proc. Zool. Soc. Lond., 1864, p. 178—vicinity of Mexico City; Butcher, Proc. Acad. Nat. Sci. Phila., 1868, p. 150—Laredo, Texas; Baird, in Cooper, Orn. Calif., p. 519, 1870—Rio Grande Valley, Texas; Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., 3, p. 387, pl. 58, fig. 7, 1874 (monog.); Lawrence (and Grayson), Mem. Bost. Soc. N. H., 2, p. 305, 1874—Sinaloa (Mazatlan), Guadalajara, and Tepic; idem, Bull. U. S. Nat. Mus., 4, p. 44, 1876—Tehuantepec City; Salvin, Proc. Zool. Soc. Lond., 1883, p. 428—Acapulco, Guerrero; Nutting, Proc. U. S. Nat. Mus., 6, p. 389, 1884—Sucuyá, Nicaragua; Ferrari-Perez, l.c., 9, p. 175, 1886—Huexotitla, Puebla; Ridgway, l.c., 14, p. 471, 1891—Chamelicon, Honduras; Attwater, Auk, 9, p. 233, 1892—San Antonio, Texas; Salvadori, Cat. Bds. Brit. Mus., 21, p. 465, 1893—"Lower California (La Paz)," Texas (Laredo, Hidalgo, Corpus Christi), Sonora (Nacozari, Rio Mayo, Guyamas), Nuevo León (Rio de la Gilla, San Augustin, Vaqueria, Topo Chico), Chihuahua (Tamasachic), Tepic (Santiago),

- Jalisco (Bolaños, Tonila), Sinaloa (Mazatlan, Presidio), Guerrero (Acapulco, Soledad), Puebla, Tamaulipas (Tampico, Tamesi, Aldama, Nuevo Laredo), Aguas Calientes, San Luis Potosí, Mexico (Chimalpa, Ixtapalapa, Coapa, Culhuacan, Atotonilco, City of Mexico), Vera Cruz (La Antigua, Plan del Rio), Oaxaca (Putla, Tehuantepec City), Guatemala (Choctum, Dueñas, San Gerónimo), El Salvador (La Libertad), and Nicaragua (Chinandega, El Volcan); Allen, Bull. Amer. Mus. N. H., 5, p. 34, 1893—Granados, Sonora; Jouy, Proc. U. S. Nat. Mus., 16, p. 789, 1893—San Luis Potosí and Guadalajara, Mexico; Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—San José, Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 248, 1902—Mexico to Nicaragua; Miller, Bull. Amer. Mus. N. H., 21, p. 343, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 163, 1906—La Boquilla and Rio Sestin, Durango; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 80, 1907—El Rancho and Gualan, Guatemala; Visher, Auk, 27, p. 281, 1910—about Tucson, Arizona; Lacey, Auk, 28, p. 207, 1911—San Antonio and Kerrville, Kerr County, Texas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 390, 1916—southern Texas to Nicaragua (monog.); Rendahl, Ark. Zool., 12, No. 8, p. 15, 1919—Granada and Masaya, Nicaragua; Griscom, Auk, 37, p. 51, 1920—San Antonio, Texas; idem and Crosby, Auk, 42, p. 534, 1925—Brownsville, Texas; Friedmann, Auk, 42, p. 544, 1925—Brownsville, Texas; McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 8, 1927—Labrados, Sinaloa; Grinnell, Univ. Calif. Pub. Zool., 32, p. 240, 1928—"Lower California" (occurrence not authenticated); van Rossem, Trans. San Diego Soc. N. H., 6, p. 249, 1931—Sonora (Tecoripa, Saric, San José de Guaymas, Guaymas, Obregón); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 305, 1932—Cantarranas, Honduras (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 113, 1932—Guatemala (San José, Ocos, Progreso, Finca La Primavera, Hacienda California, Huehuetenango, Finca El Espino, San Antonio); idem, Bull. Mus. Comp. Zool., 75, p. 372, 1934—Chilpancingo, Guerrero; van Rossem, l.c., 77, p. 435, 1934—Sonora (Guaymas, Alamos, Nacozari, Oposura) and Chihuahua (Chihuahua, Durazno); Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 414, 1935—Gualan, Guatemala; Peters, Bds. World, 3, p. 103, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 195, 1938—Lake Olomega, Divisadero, Rio Goascorán, Puerto del Triunfo, Rio San Miguel, San Salvador, Sonsonate, Mount Cacaquatique, and Los Esesmiles, El Salvador (habits, crit.).
- Geopelia inca* Schlegel, Mus. Pays-Bas, Columbae, p. 133, 1873—Mexico.
- Scardafella inca dialeucos* Bangs, Proc. Biol. Soc. Wash., 18, p. 152, 1905—boundary line between Honduras and Nicaragua, 180 miles from Pacific coast (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 164, 1930); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 472, 1927—Guatemala to Nicaragua (crit.); Griscom, Auk, 50, p. 300, 1933—La Cruz, Guanacaste, Costa Rica.
- Scardafella inca inca* Thayer and Bangs, Proc. Biol. Soc. Wash., 19, p. 18, 1906—Opodepe and La Chumata, Sonora; Phillips, Auk, 28, p. 75, 1911—Tamaulipas (Matamoros, San Fernando, Rio Martinez); Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 472, 1927—Presidio, Vera Cruz; idem, l.c., 68, p. 387, 1928—Chivelá, Oaxaca.

Range.—Arizona, southern New Mexico, and central Texas south through Mexico and Central America to Nicaragua and north-western Costa Rica (Guanacaste).¹

Field Museum Collection.—45: Arizona (Tucson, Pima County, 2; Calabasas, Santa Cruz County, 1); Mexico (Chihuahua, Chihuahua, 1; Sabinas, Coahuila, 3; Iguará, Guerrero, 14; Jalisco, 2; Cuernavaca, Morelos, 1; San Gerónimo, Oaxaca, 2; San Luis Potosí, San Luis Potosí, 1; Tampico, Tamaulipas, 2); Guatemala (Salamá, Baja Verapaz, 3; Tiquisate, Escuintla, 2; Concepción del Mar, Escuintla, 1; El Rancho, Zacapa, 1; Gualan, Zacapa, 1); El Salvador (San Salvador, 2; Sonsonate, 2; Lake Olomega, San Miguel, 1); Nicaragua (San Gerónimo, Chinandega, 3).

Conover Collection.—24: Mexico (Cruz, Tamaulipas, 2; Alamos, Sonora, 1; Tecoripa, Sonora, 2; Apatzingan, Michoacan, 1); Guatemala (San José, Pacific sea level, 4; El Rancho, Zacapa, 4; Tiquisate, Escuintla, 4); Honduras (Comayagua, Tegucigalpa, 3; near Archaga, Tegucigalpa, 3).

Genus GYMNOPELIA Sclater and Salvin

Gymnopelia Sclater and Salvin, Nomencl. Av. Neotr., pp. 133, 156, 1873—type, by orig. desig., *Columba erythrothorax* Meyen=*Columba* (*Chamoepelia*) *ceciliae* Lesson.

**Gymnopelia ceciliae* obsoleta Zimmer.² MARAÑÓN BARE-FACED DOVE.

Gymnopelia ceciliae obsoleta Zimmer, Field Mus. Nat. Hist., Zool. Ser., 12, p. 51, 1924—Culcui, Marañón River, Peru (type in Field Museum of Natural History); idem, l.c., 17, p. 257, 1930—Culcui and Balsas, Peru.

Gymnopelia erythrothorax (not *Columba erythrothorax* Meyen) Salvin, Nov. Zool., 2, p. 21, 1895—Cajabamba, Huamachuco, and near Cajamarca, Peru.

¹ After examining the extensive series in the British Museum, the senior author finds himself unable to maintain the alleged southern race (*dialeucos*). While it is admitted that a good many individuals from Guatemala are slightly darker above with more white on the wing coverts, and rather whiter beneath, exceptions are so frequent that no practical advantage is derived from recognizing more than one form. Three adults collected by M. Sassi at Bebedéro, Guanacaste, Costa Rica, agree well with others from Nicaragua and Honduras.

² *Gymnopelia ceciliae* obsoleta Zimmer: Very close to *G. c. ceciliae*, but slightly larger; upper parts darker, more grayish brown, less sandy; breast paler and less vinaceous (grayish vinaceous in the male, lilac gray in the female); buffy abdominal zone more extensive and spreading onto the lower breast. Wing (male), 104–106; tail, 83–87; bill, 12.

Additional material examined.—Peru: Cajabamba, 2; San Pablo, Cajamarca, 1; Huamachuco, 1; Tambo Carrizal, mountains east of Balsas, 1.

Gymnopelia ceciliae ceciliae (not *Columba ceciliae* Lesson) Chubb, Ibis, 1919, p. 37—part, Cajabamba and Huamachuco.

Metriopelia ceciliae obsoleta Peters, Bds. World, 3, p. 102, 1937 (range).

Range.—Temperate and Puna zones of the upper Marañón Valley and its tributaries in northern Peru.

Field Museum Collection.—1: Peru (Balsas, Amazonas, 1).

Conover Collection.—1: Peru (Culcui, Rio Marañón, 1).

****Gymnopelia ceciliae ceciliae* (Lesson). CECILIA'S BARE-FACED DOVE.**

Columba (Chamoepelia) ceciliae Lesson, Echo du Monde Sav., 12, No. 1, col. 8, Jan. 12, 1845—Peru (location of type not stated).

Columba (Chamoepelia) anais Lesson, Oeuvr. Buffon (éd. Leveque), 20 (Descr. Mammif. et Ois.), p. 210, 1847—Peru (location of type not stated).

Chamaepelia anais Sclater, Proc. Zool. Soc. Lond., 1866, p. 100—vicinity of Lima.

Chamaepelia erythrothorax (not *Columba erythrothorax* Meyen) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 155—Tinta, Urubamba, Peru.

Gymnopelia erythrothorax Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 555—between "Cacas" [=Cucas] and Palcamayo, Junín; idem, Orn. Pér., 3, p. 249, 1886—Peru (between Cucas and Palcamayo; Lima; Carumas); Salvadori, Cat. Bds. Brit. Mus., 21, p. 468, 1893—part, spec. a, d, Tinta and Lima, Peru.

Gymnopelia anais Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—Tarma, Junín.

Gymnopelia ceciliae ceciliae Chubb, Ibis, 1919, p. 37—part, (?) San Pablo (Cajamarca), Marca (Ancachs), San Mateo and Chosica (Lima); Chapman, Bull. U. S. Nat. Mus., 117, p. 46, 1921—Ollantaytambo, Chospiyoc, Huaracundo, Cuzco, and La Raya, Urubamba, Peru; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 257, 1930—Santa Eulalia and Matucana, Lima, Peru.

Metriopelia ceciliae ceciliae Peters, Bds. World, 3, p. 102, 1937 (range); Morrison, Ibis, 1939, p. 462—Huancavelica and Yauli, Peru.

Range.—Temperate and Puna zones of Peru (excepting the Marañón slope of the coast Cordillera and the extreme southern portion).¹

Field Museum Collection.—11: Peru (Hacienda Llagueda, Otuzco, 2; Macate, Ancachs, 9).

Conover Collection.—3: Peru (Santa Eulalia, 1; Matucana, 1; Lima, 1).

¹ *Additional material examined*.—Peru: Marca, Ancachs, 1; Chosica, Lima, 1; San Mateo, Lima, 2; Hacienda Queta, Tarma, Junín, 2.

****Gymnopelia ceciliae* gymnops Chubb.¹ BOLIVIAN BARE-FACED DOVE.**

Gymnopelia ceciliae gymnops Chubb, Bull. Brit. Orn. Cl., 38, p. 18, 1917—Challapata, [Oruro], Bolivia (type in the British Museum examined); idem, Ibis, 1919, p. 38—Tapacari (Cochabamba), El Cabrada (Chuquisaca), and Challapata (Oruro), Bolivia (crit.); Chapman, Bull. U. S. Nat. Mus., 117, p. 47 (in text), 1921—Tirapata, Titicaca basin, Peru; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 350, 1932—Putre, Tacna, Chile (crit.).

Columba erythrothorax (not of Temminck and Knip, 1811) Meyen, Nov. Act. Acad. Caesar. Leop.-Carol. Nat. Cur., 16, Suppl., p. 92, pl. 26, 1834—Pisacoma (alt. 14,000–15,000 ft.), Arequipa, Peru (type in Berlin Museum; cf. Tschudi, Unters. Faun. Peru., Orn., p. 276 [in text], 1846).

Columba monticola (not of Vieillot, 1818) Tschudi, Arch. Naturg., 10, (1), p. 305, 1844—new name for *Columba erythrothorax* Meyen, preoccupied; idem, Unters. Faun. Peru., Orn., p. 276 (in text), 1846.

Chamaepelia anais (not of Lesson) Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 23, 1855—"Sacora" [= Tacora], Tacna, Chile.

Chamaepelia erythrothorax Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 989—Arequipa; iidem, l.c., 1868, p. 569—Arequipa.

Gymnopelia erythrothorax Allen, Bull. Mus. Comp. Zool., 3, p. 355, 1876—Moho, Lake Titicaca; Sclater, Proc. Zool. Soc. Lond., 1886, p. 402—Sibaya, Tarapacá, Chile; Allen, Bull. Amer. Mus. N. H., 2, p. 105, 1889—near La Paz, Bolivia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 468, 1893—part, spec. b, c, e-i, Peru (Arequipa), Bolivia, and Chile ("Iquique" and Tarapacá); Reed, Anal. Univ. Chile, 93, p. 209, 1896—Tarapacá, Chile.

Gymnopelia anais (not *Columba anais* Lesson) Berlepsch and Stolzmann, Ornith., 13, p. 130, 1906—Puno, Peru.

Metriopelia ceciliae zimmeri Peters, Bds. World, 3, p. 102, 1937—new name for *Gymnopelia ceciliae gymnops* Chubb.²

Range.—Temperate and Puna zones of extreme southern Peru (Titicaca basin and southern Arequipa), northern Chile (provinces of Tacna and Tarapacá), and Bolivia (depts. of Oruro, La Paz, Cochabamba, and Chuquisaca).

Field Museum Collection.—2: Peru (Puno, Puno, 1); Chile (Putre, Tarapacá, 1).

¹*Gymnopelia ceciliae gymnops* Chubb: Nearest to *G. c. ceciliae*, but upper parts much paler and more brownish with the tail coverts buffy brown to buckthorn brown; central rectrices lighter; foreneck and chest much deeper vinous; abdomen deeper buff. Wing, 98–104; tail, 71–76; bill, 10½–12.

Additional material examined.—Peru: Arequipa, 1; Caylloma, Arequipa, 1.—Bolivia: Chililaya, Lake Titicaca, 6; La Paz, 1; Chichani, La Paz, 1; Tapacari, Cochabamba, 1; El Cabrada, Chuquisaca, 1; Challapata, Oruro, 2.—Chile: Sibaya, Tarapacá, 1.

²Bonaparte (Compt. Rend. Acad. Sci. Paris, 40, p. 23, 1855) does not adopt *Ch. gymnops* ("Gray" MS.) for the dove, which he calls *C. anais*, but merely quotes the name from British Museum labels.

Conover Collection.—16: Peru (Puno, Puno, 1; Chucuito, Puno, 6); Bolivia, Cochabamba (Vacas, 2; Tirque, 5; Chocaya, 1; Arani, 1).

****Gymnopelia morenoi* Sharpe.¹ MORENO'S BARE-FACED DOVE.**

Gymnopelia morenoi Sharpe, Bull. Brit. Orn. Cl., 12, p. 54, 1902—Inca-huasi, Salta, Argentina (type in British Museum examined); Hartert and Venturi, Nov. Zool., 16, p. 262, 1909—Tafi, Lara, and Las Ciénagas, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 192, 1910—Salta; Giacomelli, El Hornero, 3, p. 81, 1923—between La Rioja and Chilecito, La Rioja (ex Koslowsky); Dinelli, l.c., 4, p. 276, 1929—cerros of Tucumán (nesting).

Gymnopelia erythrorax (not *Columba erythrorax* Meyen) Koslowsky, Rev. Mus. La Plata, 6, p. 286, 1895—between La Rioja and Chilecito, La Rioja; Bruch, l.c., 11, p. 249, 1904—La Poma, Salta; Baer, Ornith., 12, p. 233, 1904—Lara, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 192, 1910—Tucumán (Tafi, La Ciénaga) and La Rioja (Chilecito).

Gymnopelia erythrorax [sic] Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902—Tafi and Valle de la Ciénaga, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—same localities; Budin, El Hornero, 4, p. 402, 1931—Maimará, Jujuy.

Metriopelia morenoi Peters, Bds. World, 3, p. 102, 1937 (range).

Range.—Temperate and Puna zones of northwestern Argentina, in provinces of Jujuy, Salta, Tucumán, Catamarca, and La Rioja.

Field Museum Collection.—2: Argentina (Maimará, Jujuy, 2).

Conover Collection.—1: Argentina (Corral Quemada, Catamarca, 1).

Genus COLUMBIGALLINA Boie

Columbigallina Boie,² Isis, 1826, Heft 10, col. 977, Oct., 1826—type, by virtual monotypy, *Columba passerina* Linnaeus.

Chaemepelia [rectius *Chamaepelia*]³ Swainson, Zool. Journ., 3, No. 11, p. 361, Dec., 1827—type, by subs. desig. (Gray, List Gen. Subgen. Bds., 2nd ed., p. 75, 1841), *Columba passerina* Linnaeus; cf. Smiths. Inst. Pub., No. 2256, pp. 145–146, 1914.

Talpacotia Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 22, Jan., 1855—type, by orig. desig., *Columba talpacoti* Temminck.

¹ *Gymnopelia morenoi* Sharpe is very distinct from *G. ceciliae* by reason of uniform brownish gray upper parts without any light markings on back and wing coverts; grayish throat and chest; pale vinaceous abdomen and under tail coverts; more extensive rufous inner margin to the remiges, etc. Wing (male), 95–99; tail, 78; bill, 11½.

Additional material examined.—Argentina, Tucumán: Cerro Muñoz, 1; Tafi, 2; Las Ciénagas, 2; Lara, 3.—Salta: Inca-huasi, 1 (the type).

² *Columbigallina* Oken (Isis, 1817, p. 1184) is a nomen nudum without nomenclatural standing.

³ This generic name has been variously changed and emended by subsequent authors. Since the list of these names with their references has been given by both Todd (Ann. Carnegie Mus., 8, pp. 509–510, 1913) and Ridgway (Bull. U. S. Nat. Mus., 50, Part 7, p. 393, 1916), it need not be repeated here.

Pyrgitoenas Reichenbach, Vollst. Naturg. Tauben, p. 13, 1862—new name for *Chamaepelia* Bonaparte, Consp. Gen. Av., 2, p. 77, 1855 [=1857].

Leptopelia Heine, in Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 283, 1890—substitute name for *Talpacotia* Bonaparte.

****Columbigallina passerina passerina* (Linnaeus). FLORIDA
GROUND DOVE.**

Columba passerina Linnaeus, Syst. Nat., 10th ed., 1, p. 165, 1758—part, based mainly on "The Ground Dove" Catesby, Nat. Hist. Carolina, 1, p. 26, pl. 26, "Carolina"=South Carolina.¹

Chamaepelia purpurea Maynard, Amer. Exchange and Mart., 3, p. 33, Jan. 15, 1887—"continent of North America" (provisional name; no type designated).

Columbigallina passerina terrestris Chapman, Bull. Amer. Mus. N. H., 4, p. 293 (in text), 1892—eastern North America (no type designated).

Chamaepelia passerina Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. b, c, u-b", South Carolina and Florida; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 250, 1902—part, Florida.

Chamaepelia terrestris Lowe, Ibis, 1908, p. 110—Florida (crit.).

Chaempelia passerina passerina Todd, Ann. Carnegie Mus., 8, p. 524, 1913 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 398, 1916 (monog.).

Columbigallina passerina passerina Peters, Bds. World, 3, p. 105, 1937 (range).

Range.—South Atlantic and Gulf states of North America from South Carolina to southeastern Texas; accidental to Tennessee, North Carolina, Virginia, Maryland, Pennsylvania, New Jersey, and New York.

Field Museum Collection.—43: Georgia (Sapelo Island, McIntosh County, 5); Florida (Gainesville, Alachua County, 4; Eau Gallie, Brevard County, 1; Wilson, Brevard County, 2; Clay County, 2; Miami Beach, Dade County, 6; Grove City, De Soto County, 5; Puntarasa, Lee County, 2; Key West, Monroe County, 1; Amelia Island, Nassau County, 6; Orange County, 4; West Jupiter, Palm Beach County, 1; Enterprise, Volusia County, 4).

Conover Collection.—10: Florida (Eau Gallie, 1; Nassau County, 1; Miami Beach, Dade County, 8).

****Columbigallina passerina pallescens* (Baird). MEXICAN
GROUND DOVE.**

Chamaepelia passerina? var. *pallescens* Baird, Proc. Acad. Nat. Sci. Phila., [11], Oct.-Nov., 1859, p. 305, pub. Jan. 12, 1860—Cape San Lucas, Lower California (type in U. S. National Museum).

¹ Aside from Marcgrave's "*Picuipinima*," which pertains to *Scardafella squamata squamata*, Linnaeus's species includes the North American, Jamaican, and Barbados races, but was explicitly restricted to the first-named by Bonaparte (Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 21, Jan., 1855).

Chamaepelia passerina (not *Columba passerina* Linnaeus) Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. d-t, c'-m^s, Arizona, Texas, Lower California, Mexico, Guatemala, Yucatan, Cozumel, Muges, and British Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 250, 1902—part, Texas to Lower California and south through Mexico to Guatemala and British Honduras.

Chamaepelia pallescens Lowe, Ibis, 1908, p. 111—southwestern United States to Mexico (crit.).

Chaemepelia passerina pallescens Todd, Ann. Carnegie Mus., 8, p. 534, 1913 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 402, 1916 (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 296, 1926—Cape San Lucas and Tres Marias (Maria Madre, Maria Magdalena); idem, l.c., (4), 16, p. 8, 1927—Sinaloa (Mazatlan, Labrados), Nayarit (San Blas), and Maria Madre Island.

Chamaepelia passerina pallescens Grinnell, Univ. Calif. Pub. Zool., 32, p. 105, 1928—Lower California.

Columbigallina passerina pallescens van Rossem, Trans. San Diego Soc. N. H., 6, p. 248, 1931—Sonora (San Javier, Saric, southwest of Nogales, Guaymas, El Alamo); Griscom, Bull. Amer. Mus. N. H., 64, p. 113, 1932—Guatemala (Panajachel, San Lucas, Antigua, Sacapulas) (crit.); van Rossem, Bull. Mus. Comp. Zool., 77, p. 434, 1934—Sonora (Guaymas, Alamos, Bacuachi, Oposura); Peters, Bds. World, 3, p. 106, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 189, 1938—Divisadero, Rio Goascorán, Colima, and Lake Guija, El Salvador.

Range.—Lower California, southeastern California, southern Arizona, and western Texas south through Mexico and Guatemala to British Honduras¹ and Salvador.

Field Museum Collection.—25: Arizona (Phoenix, Maricopa County, 1; Tucson, Pima County, 1; Calabasas, Santa Cruz County, 2); Texas (Brownsville, Cameron County, 1); Mexico (Igualá, Guerrero, 9; Tampico, Tamaulipas, 2; Yucatan, 1); Guatemala (Lake Atitlan, Sololá, 2; Gualan, Zacapa, 2); El Salvador (Divisadero, Morazan, 3; El Tablón, Santa Ana, 1).

Conover Collection.—24: Texas (Harlingen, Cameron County, 3; Brownsville, Cameron County, 2); Arizona (Tucson, Pima County, 3); Mexico (Rancho Carrizo, Sonora, 1; Soyopa, Sonora, 4; Tecoripa, Sonora, 2; San José del Cabo, Lower California, 3; La Paz, Lower California, 1; Apatzingan, Michoacan, 1); Guatemala (Zanarate, 2; Amatitlan, 2).

****Columbigallina passerina socorroensis* Ridgway. SOCORRO GROUND DOVE.**

¹ Birds from Guatemala (and British Honduras), though more or less intermediate, are, according to Griscom, markedly nearer to *pallescens* than to *neglecta*.

Columbigallina passerina socorroensis Ridgway, Man. N. Amer. Bds., p. 586, 1887—Socorro Island (type in U. S. National Museum); Peters, Bds. World, 3, p. 107, 1937 (range).

Chaemepelia passerina socorroensis Todd, Ann. Carnegie Mus., 8, p. 543, 1913 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 406, 1916 (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 296, 1926—Socorro Island.

Range.—Socorro Island, Revillagigedo group, off western Mexico.¹

Conover Collection.—1: Mexico (Socorro Island, Revillagigedo group, 1).

****Columbigallina passerina neglecta* (Carriker).² COSTA RICAN GROUND DOVE.**

Chaemepelia passerina neglecta Carriker, Ann. Carnegie Mus., 6, p. 398, 1910—Esparita, Costa Rica (type in Carnegie Museum, Pittsburgh); Todd, l.c., 8, p. 540, 1913—part, southern Honduras to Costa Rica (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 407, 1916—part, Honduras to Costa Rica (monog.); Rendahl, Ark. Zool., 12, No. 8, p. 15, 1919—Granada and Rio Ometépe, Nicaragua.

Chamaepelia passerina (not *Columba passerina* Linnaeus) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 139, 1868—San José and Cartago, Costa Rica; Frantz, Journ. Orn., 17, p. 371, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 43—San José, Costa Rica; Nutting, Proc. U. S. Nat. Mus., 5, p. 408, 1882—La Palma de Nicoya, Costa Rica; Ridgway, l.c., 5, p. 502, 1883—Volcan de Irazú, Costa Rica; Nutting, l.c., 6, pp. 378, 389, 396, 1883—San Juan del Sur, Sucuyá, and Ometépe, Nicaragua; Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. n^s-p^s, Costa Rica (San José, Irazú); Underwood, Ibis, 1896, p. 447—Miravalles and Bagáces, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 250, 1902—part, Nicaragua and Costa Rica.

Peristera passerina Schlegel, Mus. Pays-Bas, Columbæ, p. 135, 1873—part, spec. Nos. 4-8, Costa Rica.

Columbigallina passerina Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—San José; Cherrie, Auk, 7, p. 333, 1890—San José; idem, Auk, 9, p. 329, 1892—San José.

¹ The reported occurrences on Tres Marias and Maria Madre Islands, and at Mazatlan, Sinaloa, which have never been confirmed, may be due to wrongly labeled specimens.

² *Columbigallina passerina neglecta* (Carriker) is near to *C. p. pallescens*, but darker throughout, the male particularly much deeper vinaceous below. From *C. p. passerina* it may be separated chiefly by darker brown upper parts, red instead of yellow base of the bill, and slightly deeper vinaceous sides of head and neck in the male sex.

Seventeen additional specimens from Bebedéro and one from San Isidro de Coronado, near San José, Costa Rica, have been examined.

Columbigallina passerina pallescens (not *Chamaepelia passerina* var. *pallescens* Baird) Richmond, Proc. U. S. Nat. Mus., 16, p. 523, 1893—San Carlos, Nicaragua.

Columbigallina passerina neglecta Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 306, 1932—San Juancito and Cantarranas, Honduras; Bond, l.c., 88, p. 357, 1936—Bonacca Island, Bay of Honduras; Peters, Bds. World, 3, p. 107, 1937 (range).

Range.—Honduras, Nicaragua, and Costa Rica (excepting the Térraba Valley).¹

Field Museum Collection.—3: Costa Rica (Limón, Limón, 2; San José, San José, 1).

Conover Collection.—22: Honduras (near Archaga, Tegucigalpa, 3; Comayaguela, Tegucigalpa, 4; Tegucigalpa, 2); Costa Rica (Las Cañas, 3; Punta Piedra, Guanacaste, 4; Cartago, Cartago, 6).

***Columbigallina passerina parvula* (Todd).² LESSER GROUND DOVE.**

Chamaepelia passerina parvula Todd, Ann. Carnegie Mus., 8, p. 544, 1913—Honda, Colombia (type in U. S. National Museum); Chapman, Bull. Amer. Mus. N. H., 36, p. 208, 1917—part, Honda and Chicoral, Magdalena Valley.

Chamaepelia passerina (not *Columba passerina* Linnaeus) Berlepsch, Journ. Orn., 32, p. 317, 1884—Bucaramanga, Colombia.

Columbigallina passerina Robinson, Flying Trip to Tropics, p. 154, 1895—part, Honda and Guaduas, Colombia.

Columbigallina passerina parvula Peters, Bds. World, 3, p. 107, 1937 (range).

Range.—Eastern Colombia (Magdalena Valley).

¹ Canon Tristram's record of "*Chamaepelia granatina*" from Panama (Cat. Coll. Bds., p. 39, 1889) is doubtless due to misidentification of a specimen of *C. minuta elaeodes* Todd.

² *Columbigallina passerina parvula* (Todd) is characterized as the smallest race of the group with very dark coloration, the male being fully as richly colored as that of *C. p. socorroensis*. The describer gives for two males and one female from Honda the following measurements: wing, 75–77, (female) 73; tail, 54–55, (female) 51. We have seen only a single adult male from Bucaramanga, which is indeed much more richly colored than either *C. p. griseola* or *C. p. quitensis*. Its dimensions are, however, markedly larger than the figures quoted by Mr. Todd for the Honda specimens, the wing measuring fully 82 mm., and the tail being likewise slightly longer, about 55 mm. We can hardly believe that there are two races living in the Magdalena Valley, and until adequate material from this region becomes available, it will be well-nigh impossible to indicate, with any degree of finality, the actual characters of *parvula*. There is yet the possibility that *Chamaepelia granatina* Bonaparte (Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 21, Jan., 1855; idem, Consp. Gen. Av., 2, p. 77, "1855" = 1857), based on an apparently female individual from Bogotá, is an earlier name. According to Salvadori (Cat. Bds. Brit. Mus., 21, p. 475, 1893), the type does not any more exist in the Paris Museum.

***Columbigallina passerina nana** (Todd).¹ CAUCA GROUND DOVE.

Chaemepelia passerina nana Todd, Ann. Carnegie Mus., 8, p. 546, 1913—Jiménez, Rio Dagua, western Colombia (type in the Carnegie Museum, Pittsburgh); Chapman, Bull. Amer. Mus. N. H., 36, p. 209, 1917—Caldas, Rio Dagua, and La Manuelita, Cauca Valley, Colombia.

Columbigallina passerina nana Peters, Bds. World, 3, p. 107, 1937 (range).

Range.—Western Colombia, in the Cauca Valley and the basin of the Rio Dagua, western Andes.

Conover Collection.—5: Colombia (El Tambo, Cauca, 4; Munchique, El Tambo, 1).

***Columbigallina passerina quitensis** (Todd).² ECUADORIAN GROUND DOVE.

Chaemepelia passerina quitensis Todd, Ann. Carnegie Mus., 8, p. 547, 1913—Zambiza (six miles northeast of Quito), Ecuador (type in the Carnegie Museum, Pittsburgh); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 17, 1922—Zambiza, Pomasqui, Cumbaya, and Tumbaco; Chapman, Bull. Amer. Mus. N. H., 55, p. 165, 1926—near Quito, Tumbaco, Valle de Cumbaya, Chambo, Riobamba, Zambiza, and Pomasqui.

Chamaepelia granatina (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 26, p. 556, 1858—Riobamba, Ecuador.

Chamaepelia passerina (not *Columba passerina* Linnaeus) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 111—Riobamba; Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. q⁶-w⁶, "Sarayacu" (errore), Sical, and Quito, Ecuador; idem and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 35, 1900—La Concepción, Ibarra, and Tumbaco; Goodfellow, Ibis, 1902, p. 227—Chillo Valley, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B. 7, 1911—Calacali and Tumbaco; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 356, 1927—Tumbaco.

¹ *Columbigallina passerina nana* (Todd): Similar to *C. p. pallescens*, but crown and nape grayish brown like the back, more or less suffused with vinaceous, seldom with any trace of plumbeous, and the squamation obsolete; vinaceous of under parts and wing coverts deeper, and size much less; female decidedly darker and smaller, without any plumbeous on crown and nape, and the squamation of these parts indistinct. Wing, 77–80, (female) 74; tail, 52–60, (female) 55 (Todd, l.c.).

Differs from *quitensis* by its smaller size, and in the male sex slightly browner upper parts.

² *Columbigallina passerina quitensis* (Todd): Very close to *C. p. neglecta*, but slightly smaller and paler; the plumbeous area of the crown and nape paler, more restricted, and less distinctly squamate. Stated to be darker and larger than *C. p. nana*. The female is hardly distinguishable from that of *C. p. neglecta* by shorter bill and slightly shorter wings.

From *C. p. griseola*, the present form may be separated by its somewhat larger size and darker coloration, the males being much more vinaceous. Nine additional specimens from the highlands of Ecuador (Paramba and Quito region) were examined.

Columbigallina passerina Allen, Bull. Amer. Mus. N. H., 2, p. 76, 1889—Quito.

Columbigallina passerina granatina Hartert, Nov. Zool., 5, p. 503, 1898—"Puente de Chimbo," Ecuador (crit.).

Chamaepelia passerina quitensis Chubb, Ibis, 1919, p. 39—Riobamba (crit.).

Columbigallina passerina quitensis Peters, Bds. World, 3, p. 107, 1937 (range).

Range.—Temperate zone of Ecuador (Guailabamba Canyon to Riobamba).¹

Conover Collection.—14: Ecuador (Valle de Rojas, Occidente, 10; Cumbaya, Pichincha, 3; near Quito, 1).

****Columbigallina passerina griseola* (Spix).² GRAYISH GROUND DOVE.**

Columbina griseola Spix, Av. Spec. Nov. Bras., 2, p. 58, pl. 75a, fig. 2 (immature), 1825—"in sylvis fl. Amazonum," Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 697, 1906); Chubb, Bds. Brit. Guiana, 1, p. 42, 1916—Abary River, upper Takutu Mountains, Great Falls, Demerara River, Quonga, and Georgetown.

Chamaepelia griseola Burmeister, Syst. Uebers. Th. Bras., 3, p. 296, 1856—campo region of interior Brazil south to Paraguay (errore), north to the Amazon (descr.); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 56 (not in Minas Geraes).

Columba passerina (not of Linnaeus) Schomburgk, Reisen Brit. Guiana, 1, p. 394, 1847—Pirara; idem, l.c., 2, p. 490, 1848—sandhills on the banks of the Demerara, near Georgetown.

Chamaepelia passerina Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 743, 1849—sandhills on the Demerara River; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 591—Pará; Pelzeln, Orn. Bras., 3, p. 277, 1870—Borba (Rio Madeira), São Joaquim (mouth of the Rio Uaupés), São Gabriel (Rio Negro), Manáos, and Forte do Rio Branco, Brazil (spec. examined); Layard, Ibis, 1873, p. 395—Pará; Allen, Bull. Essex Inst., 8, p. 82, 1876—Santarém; Salvin, Ibis, 1886, p. 173—British Guiana; Tac-

¹ There is no reliable record for the occurrence of this (or any other) form in Peru.

² *Columbigallina passerina griseola* (Spix): Nearest to *C. p. quitensis*, but somewhat smaller and coloration decidedly darker or duller, this being particularly noticeable in the vinaceous tone of the under parts in the male sex. The bill, according to Natterer's and Reiser's notes, is entirely dusky in life. Wing (male), 76–80; tail, 54–60.

Birds from British Guiana are on average slightly paler, especially below, but this variation does not necessarily indicate an approach to *C. p. albivitta*, as a similar tendency is observable in specimens from Piahy and Bahia. Amazonian and French Guiana skins are practically identical inter se.

Additional material examined.—British Guiana: Quonga, 1; Demerara, 2.—French Guiana: Cayenne, 6; Roche-Marie, 3.—Brazil: Pará, 1; Bemfica, Pará, 1; Borba, Rio Madeira, 4; Manáos, 1; São Joaquim, Rio Negro, 1; São Luiz, Maranhão, 1; Amaração, Piahy, 5; Bahia, 2.

zanowski, Orn. Pér., 3, p. 242, 1886—part, Cayenne (descr. of female); Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. x⁴-f⁸, Brazil (Borba, Pará, Pernambuco) and British Guiana (Quonga, Annai); Loat, Ibis, 1898, p. 565—vicinity of Georgetown, British Guiana; Goeldi, Ibis, 1903, pp. 481, 499—Approaga, Rio Capim, Pará; Snethlage, Journ. Orn., 56, p. 496 (in text), 1908—Isla Goyana, Rio Tapajóz; Penard, Vog. Guyana, 1, p. 337, 1908—Surinam (habits); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—coast of Piauhý; idem, l.c., p. 190, 1924—near Amaração, Piauhý.

Peristera passerina Schlegel, Mus. Pays-Bas, Columbae, p. 135, 1873—part, Nos. 16-18, Demerara and Surinam.

Columbigallina passerina Riker and Chapman, Auk, 8, p. 162, 1891—Santarém; Berlepsch, Journ. Orn., 40, pp. 97, 102, 1892—Bahia, British Guiana, and Cayenne (crit.).

Columbigallina passerina griseola Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 697, 1906—part, Bahia and Pará (crit.); idem, Nov. Zool., 13, p. 384, 1906—Santo Antonio do Prata and Bemfica, Pará; Ihering, Cat. Faun. Braz., 1, p. 21, 1907—part, "Paraguay," Bahia, Pernambuco, Rio Negro, Rio Branco, and Pará; Berlepsch, Nov. Zool., 15, p. 295, 1908—Cayenne and Roche-Marie, French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 65, 1914—Pará, Quati-purú, Rio Xingú (Victoria), Ilha Maracá, and Monte Alegre; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará; Peters, Bds. World, 3, p. 107, 1937 (range).

Columbina passerina griseola Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 96, 1912—Pará, Bemfica, Rio Capim, and Santo Antonio, Pará.

Chaemepelia passerina griseola Todd, Ann. Carnegie Mus., 8, p. 548, 1913 (monog.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 44, 1918—Paramaribo, Surinam.

Chamaepelia passerina griseola Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 150, 1928—Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 467, 1929—Maranhão (Tury-assú, São Luiz) (crit.).

Range.—French, Dutch, and British Guiana, and northern Brazil south to Bahia, west to the upper Rio Negro and the Rio Madeira.¹

Field Museum Collection.—13: British Guiana (Georgetown, 2; Buxton, Demerara, 5); Brazil (Bôa Vista, Rio Branco, 3; Tury-assú, Maranhão, 1; São Luiz, Maranhão, 1; Boim, Rio Tapajóz, 1).

Conover Collection.—24: Brazil (Ipomonga, Rio Capim, 2; Resacca, Rio Capim, 3; Serraria Cabral, Rio Acará, 1; Boca de Channel Piava, Pará, 6; Tauary, Rio Tapajóz, 3; Santarem, Pará, 1; Boim,

¹ The most southerly locality where this ground dove has been found is the vicinity of Bahia, whence we have seen several trade skins. It does not occur in southern Brazil (Minas Geraes, Rio, São Paulo), and its reported existence in Misiones and Paraguay (*Columbigallina passerina griseola* Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913; idem, Faun. Parag., p. 36, 1914) is doubtless due to confusion with *C. m. minuta*. Boeck's record from Cochabamba, Bolivia, which is not substantiated by specimens, must likewise refer to some other species.

Rio Tapajóz, 3; Rio Manacapurú, Amazonas, 2); British Guiana (Buxton, Demerara, 3).

***Columbigallina passerina albivitta (Bonaparte).¹ CARTAGENA GROUND DOVE.**

(?)*Ch[amaepelia] granatina* Bonaparte, Compt. Rend. Acad. Sci. Paris, **40**, No. 1, p. 21, Jan., 1855—"Bogotá" (descr. of female; type lost, formerly in Paris Museum); idem, Consp. Gen. Av., **2**, sig. 10, "Dec. 5, 1854," p. 77, "1855" [=1857]—"Bogotá"; idem, Compt. Rend. Acad. Sci. Paris, **43**, p. 945, 1856 (crit.).²

Ch[amaepelia] albivitta Bonaparte, Compt. Rend. Acad. Sci. Paris, **40**, No. 1, p. 21, Jan., 1855—Cartagena, Colombia; idem, Consp. Gen. Av., **2**, sig. 10, "Dec. 5, 1854," p. 77, "Apr. 15, 1855" [=1857]—Cartagena (type stated to be in Paris Museum); Taylor, Ibis, 1864, p. 94—Chacachacave Island, Trinidad; Finsch, Proc. Zool. Soc. Lond., 1870, p. 554—Trinidad (ex Taylor).

Chamaepelia granatina (not of Bonaparte?) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 195—Cartagena (habits); Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 283, 1890—Puerto Cabello, Venezuela.

Chamaepelia passerina (not *Columba passerina* Linnaeus) Wyatt, Ibis, 1871, p. 383—Santa Marta, Colombia; Ridgway, Proc. U. S. Nat. Mus., **7**, p. 177, 1884—Curaçao; Salvadori, Cat. Bds. Brit. Mus., **21**, p. 473, 1893—part, spec. g⁶–k⁶, Venezuela and Trinidad.

Columbigallina passerina Allen, Bull. Amer. Mus. N. H., **4**, p. 56, 1892—Carúpano [Bermúdez], Venezuela; Berlepsch, Journ. Orn., **40**, p. 97, 1892—Curaçao (crit.); Robinson, Flying Trip to Tropics, pp. 154, 164, 1895—part, Barranquilla, Colombia, and Curaçao; idem and Richmond, Proc. U. S. Nat. Mus., **18**, pp. 659, 682, 683, 1896—Margarita Island, Guanta, and La Guayra, Venezuela; Phelps, Auk, **14**, p. 366, 1897—Cumaná, Cumanacoa, and San Antonio [Bermúdez], Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., **24**, p. 167, 1901—La Guayra, Venezuela (nest and eggs descr.); Clark, Auk, **19**, p. 261, 1902—Margarita Island.

Columbigallina passerina perpallida Hartert, Ibis, (6), **5**, pp. 304 (descr.), 325, 334, July, 1893—Aruba, Curaçao, and Bonaire, Dutch West Indies (type, from Bonaire, in Tring Collection, now in the American Museum of

¹ *Columbigallina passerina albivitta* (Bonaparte): Nearest to *C. p. griseola*, but bill at base yellow to pale orange yellow; coloration paler, the vinaceous of the under parts in the male being lighter with a faint lavender-gray hue anteriorly, and the female whiter beneath; crown pale gray.

As has been pointed out by Todd, birds from the Leeward Islands (*perpallida*) cannot be separated from those of the littoral of Colombia and Venezuela. The inhabitants of the Orinoco Valley, by slightly darker under parts, restricted gray coronal area, and less distinctly yellow basal portion of the bill, betray an undeniable tendency towards *C. p. griseola*.

² This species, the type of which has unfortunately disappeared, was probably based on a female example, as intimated by Sclater (Proc. Zool. Soc. Lond., **23**, p. 163, 1855), but whether it pertained to the present form or to *C. p. parvula*, both of which might be expected to occur in native "Bogotá" collections, will always remain a mystery.

Natural History, New York; cf. Hartert, Nov. Zool., 34, p. 11, 1927); Robinson, Flying Trip to Tropics, p. 166, 1895—Curaçao (ex Hartert); Hartert, Nov. Zool., 9, p. 305, 1902—Aruba, Curaçao, and Bonaire; Lowe, Ibis, 1907, p. 552—Margarita Island (crit.).

Columbigallina passerina pallescens (not *Chamaepelia passerina* var. *pallescens* Baird) Bangs, Proc. Biol. Soc. Wash., 12, p. 132, 1898—Santa Marta, Colombia.

Columbigallina passerina granatina Allen, Bull. Amer. Mus. N. H., 13, p. 128, 1900—Bonda, Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 118, 1902—Ciudad Bolívar, Altagracia, and Caicara, Orinoco, Venezuela; Allen, Bull. Amer. Mus. N. H., 21, p. 280, 1905—Bonda (nest and eggs descr.).

Chamaepelia perpallida Lowe, Ibis, 1907, p. 114—Blanquilla Island (crit.); idem, Ibis, 1908, p. 114—Blanquilla, Los Hermanos, and Margarita; idem, Ibis, 1909, pp. 314, 322—Los Testigos and Cariaco Peninsula, Venezuela.

Chamaepelia passerina perpallida Lowe, Ibis, 1907, p. 552—Margarita Island (crit., range).

Chamaepelia passerina perpallida Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 198, 205, 210, 218, 220, 223, 227, 230, 240, 253, 1909—Aruba, Curaçao, Bonaire, Orchilla, Tortuga, Blanquilla, Orquilla, Los Testigos, and Margarita.

Chamaepelia passerina albigitta Todd, Ann. Carnegie Mus., 8, p. 551, 1913 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 408, 1916 (monog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 208, 1917—La Playa, Colombia; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 36, 1922—Altagracia and Rio Chamá, Venezuela.

Chamaepelia passerina granatina Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 353, 1916—savanna region of the Orinoco (nest and eggs descr.).

Chamaepelia passerina albigitta Todd and Carriker, Ann. Carnegie Mus., 14, p. 194, 1922—Bonda, Mamatoco, Gaira, Dibulla, and Rio Hacha, Colombia.

Columbina griseola (not of Spix) Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 179, 1922—Naparimas (Tarouba and Princetown) north to the Caroni, Trinidad.

Columbigallina passerina albigitta Darlington, Bull. Mus. Comp. Zool., 71, p. 378, 1931—Rio Frio and Sevillano, Magdalena, Colombia; Roberts, Trop. Agric., 11, p. 92, 1934—Piarco savannah, Trinidad; Belcher and Smoker, Ibis, 1936, p. 3—Trinidad and Patos Islet (nest and eggs descr.); Peters, Bds. World, p. 107, 1937 (range).

Range.—Littoral of northern Colombia (west to Cartagena) and Venezuela, including the Caribbean Leeward Islands (from Aruba to Los Testigos) and Margarita Island, south to the Orinoco River, the Mérida region, and eastern Colombia; island of Trinidad.¹

¹ An adult male of the ordinary "Bogotá" preparation agrees in coloration and size with others from Altagracia, Orinoco River, suggesting an extension of range to the eastern base of the east Colombian Andes, where the llanos of the Rio Meta would seem to offer a suitable habitat for the species. The male from

Field Museum Collection.—74: Dutch West Indies (Aruba, 10; Curaçao, 7; Bonaire, 8); Colombia (10 miles north of Cucuta, Santander del Norte, 1); Venezuela (Colón, Tachira, 1; Maracaibo, Zulia, 2; Rio Aurare, Zulia, 1; Maracay, Aragua, 1; Macuto, Federal District, 4; Caracas, Federal District, 2; Orchilla Island, Colón, 10; Tortuga Island, Nueva Esparta, 1; Blanquilla Island, Nueva Esparta, 6; Los Hermanos Island, Nueva Esparta, 3; Margarita Island, Nueva Esparta, 5; Testigos Islands, Nueva Esparta, 7; Porlamar, Margarita Island, Nueva Esparta, 5).

Conover Collection.—4: Venezuela (Altagracia, Zulia, 3; Rio Chamá, Mérida, 1).

***Columbigallina passerina antillarum (Lowe).¹ ANTILLEAN GROUND DOVE.**

Chamaepelia antillarum Lowe, Bull. Brit. Orn. Cl., 21, p. 109, 1908—Barbados, Grenada, and St. Vincent (type, from Grenada, in coll. of P. R. Lowe, now in British Museum examined); idem, Ibis, 1909, p. 306—Barbados (crit.).

Chamaepelia passerina (not *Columba passerina* Linnaeus) Schomburgk, Hist. Barbados, p. 681, 1848—Barbados; Slater, Proc. Zool. Soc. Lond., 1874, p. 175—Barbados; Lawrence, Proc. U. S. Nat. Mus., 1, p. 196, 1878—St. Vincent; idem, i.e., 1, pp. 276, 277, 1879—Grenada and Grenadines; Lister, Ibis, 1880, p. 43—St. Vincent; Feilden, Ibis, 1889, p. 490—Barbados (habits); Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. 1^a-y^a, Grenada, Becquia, Mustique, St. Vincent, and Barbados.

Columbigallina passerina Cory, Ibis, 1886, p. 472—Barbados; Wells, Proc. U. S. Nat. Mus., 9, p. 625, 1887—Grenada; Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Bequia, Canouan, Carriacou, Grenada, and Barbados; Wells, Auk, 19, p. 344, 1902—Carriacou (nest and eggs).

Columbigallina passerina trochila (not *Chamaepelia trochila* Bonaparte) Clark, Proc. Bost. Soc. N. H., 32, pp. 262, 302, 303, 304, 306, 1905—Barbados, St. Vincent, Grenada, and Grenadines (habits).

northern Santander is likewise typical of *albirostris*. It is quite possible that the young female from Quetame, tentatively referred to *C. p. parvula* by Chapman (Bull. Amer. Mus. N. H., 36, p. 208, 1917), may actually belong to *albirostris*.

There is, as yet, no record from Tobago.

¹ *Columbigallina passerina antillarum* (Lowe): Very close to *C. p. albirostris*, but coloration of males slightly deeper, the posterior under parts, notably the under tail coverts, with much less white; the bill blackish with basal two-thirds olive or olive-brown in life.

Compared to *C. p. trochila*, this form is smaller, lighter brown above, and more deeply vinaceous underneath with squamations less pronounced, while the males, in addition, show a peculiar lavender-gray hue on the lower parts. Birds from St. Vincent are exactly like those from Grenada. Barbados birds are slightly larger and darker, thus verging toward *trochila*.

Adult males measure: Grenada (fourteen), 79–82; St. Vincent (seven), 78–82; Barbados (six), 82–84. Adult females measure: Grenada (six), 78–82; St. Vincent (three), 77–82; Barbados (seven), 80–84.

Additional material examined.—Grenada, 20; St. Vincent, 10; Barbados, 13.

Chaemepelia passerina antillarum Todd, Ann. Carnegie Mus., 8, p. 555, 1913 (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 411, 1916 (monog.).

Chamaepelia passerina antillarum Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 529, 1928—St. Vincent and Barbados.

Chamaepelia jamaicensis (not *Columbigallina jamaicensis* Maynard) Lowe, Ibis, 1908, p. 111—part, Grenada.

Columbigallina passerina antillarum Peters, Bds. World, 3, p. 106, 1937—part, Barbados south to Grenada.

Range.—Southernmost Lesser Antilles (Grenada, Grenadines, St. Vincent, and Barbados).

Field Museum Collection.—12: Lesser Antilles (Belle Plaine, Barbados, 3; Grenada, 5; St. Vincent, 4).

****Columbigallina passerina trochila* (Bonaparte).¹ MARTINIQUE GROUND DOVE.**

Chamaepelia trochila Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 21, Jan., 1855—Martinique; idem, Consp. Gen. Av., 2, sig. 10, "Dec. 5, 1854," p. 77, "April 15, 1855" [=1857]—Martinique (type stated to be in Paris Museum); Sclater, Ibis, 1862, p. 289—Martinique; idem and Semper, Proc. Zool. Soc. Lond., 1872, p. 653—Santa Lucia (crit., habits).

Chamaepelia passerina (not *Columba passerina* Linnaeus) Lawrence, Proc. U. S. Nat. Mus., 1, p. 360, 1879—Martinique; Allen, Bull. Nutt. Orn. Cl., 5, p. 169, 1880—Santa Lucia; Sclater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. z⁶, a⁷, Santa Lucia.

Chamaepelia trochilea Sclater, Proc. Zool. Soc. Lond., 1871, p. 266—Santa Lucia.

Columbigallina passerina Cory, Auk, 4, p. 96, 1887—Martinique; idem, Cat. W. Ind. Bds., pp. 97, 155, 1892—part, Martinique and Santa Lucia.

Chaemepelia passerina trochila Todd, Ann. Carnegie Mus., 8, p. 558, 1913—part, Santa Lucia and Martinique; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 412, 1916—part, Santa Lucia and Martinique; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 529, 1928—part, Santa Lucia.

Columbigallina passerina trochila Peters, Auk, 51, pp. 517, 518, 1934—Martinique (crit.); Danforth, Monog. Univ. Puerto Rico, Ser. B, No. 3, p. 42, 1935—Santa Lucia; Peters, Bds. World, 3, p. 106, 1937—Martinique.

Range.—Islands of Martinique and Santa Lucia, Lesser Antilles.

Field Museum Collection.—7: Martinique, 2; Santa Lucia, 5.

¹ *Columbigallina passerina trochila* (Bonaparte); Similar to *C. p. antillarum*, but larger and darker with the dusky squamations more pronounced, while the males lack the lavender-gray tinge on the under parts. From *C. p. nigrirostris* it may also be distinguished by larger size and heavier squamations, and the males, besides, are paler vinaceous on forehead, sides of head, and under parts. Wing (of adult males), 84–86 (Martinique), 84–86 (Santa Lucia). Nothing is on record regarding the bill-coloration in life of the present form. While slightly inter-

****Columbigallina passerina nigrirostris* Danforth.¹ DUSKY-BILLED GROUND DOVE.**

Columbigallina passerina nigrirostris Danforth, Journ. Agric. Univ. Puerto Rico, 19, p. 483, Dec., 1935—Canada Hill, St. Kitts (type in coll. of S. T. Danforth); idem, l.c., p. 479, 1935—Barbuda (no descr.); Peters, Bds. World, 3, p. 106, 1937 (range).

Chamaepelia trochila (not of Bonaparte) Newton, Ibis, 1859, pp. 253, 375—St. Croix.

Columba passerina (not of Linnaeus) Sundevall, Oefvers. Vetensk.-Akad. Handl., 26, p. 586, 1869—part, St. Bartholomew: Lawrence, Proc. U. S. Nat. Mus., 1, p. 460, 1879—Guadeloupe.

Chamaepelia passerina Lawrence, Proc. U. S. Nat. Mus., 1, pp. 67, 237, 241, 1878—Dominica, Antigua, and Barbuda; idem, l.c., p. 460, 1879—Guadeloupe; Sclater, Proc. Zool. Soc. Lond., 1889, p. 326—Dominica; idem, l.c., 1892, p. 500—Anguilla; Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. b⁷-g⁷, i⁷, k⁷, Dominica, Guadeloupe, St. Kitts, and Anguilla; Nicoll, Ibis, 1904, pp. 570, 572, 576—Dominica (Roseau Harbour), Montserrat, and St. Croix.

Columbigallina passerina Cory, Ibis, 1886, p. 474—La Desirade; idem, Auk, 8, pp. 47, 48, 1891—Antigua, St. Croix, St. Christopher, and Guadeloupe; idem, Cat. W. Ind. Bds., pp. 97, 155, 1892—part, St. Croix, St. Bartholomew, St. Christopher, Barbuda, Antigua, Montserrat, Guadeloupe, Desirade, and Dominica; Verrill, Trans. Conn. Acad. Arts & Sci., 8, pp. 324, 349, 1892—Dominica; Bowditch, Auk, 19, p. 361, 1902—part, Puerto Rico (habits).

Columbigallina passerina trochila Riley, Smiths. Misc. Coll., 47, p. 281, 1904—Barbuda and Antigua (crit.); Verrill, Addition to the Avifauna of Dominica, pp. [16, 23], 1905—Roseau Harbour, Dominica.

Chamaepelia jamaicensis (not of Maynard) Lowe, Ibis, 1908, p. 111—part, St. Kitts and Dominica.

Chamaepelia passerina trochila Todd, Ann. Carnegie Mus., 8, p. 558, 1913—part, Dominica to St. Croix; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7,

mediate to *untillarum* in coloring, birds from Santa Lucia, in our opinion, go better with the Martinique form, which they resemble in proportions.

Additional material examined.—Martinique, 8; Santa Lucia, 5.

¹ *Columbigallina passerina nigrirostris* Danforth: Very similar to *C. p. portoricensis*, but bill entirely dusky, at best with a trace of dull orange yellow at the base. Wing (adult males), 80–81, (St. Kitts and St. Croix, one each, 84).

In skins the base of the bill is indeed but slightly paler brown than the dusky remainder. We notice, however, that one of the males from St. Kitts has the basal portion just as extensively reddish as some from Puerto Rico. A male from Guadeloupe is wholly dark-billed, one from Dominica has a paler brown basal half. We think that *nigrirostris* might not always be recognizable in dry skins. There is some variation in the coloring of the upper wing coverts, which are extensively vinaceous in Desirade birds, while those from St. Kitts have practically none of that color.

All of six specimens lately received from St. Croix have a notation by the collector: "bill black, cere dusky, basal part of lower mandible reddish."

Additional material examined.—Dominica, 5; Guadeloupe, 2; Montserrat, 2; Antigua, 1; St. Kitts, 2; Anguilla, 2; St. Croix, 3.

p. 412, 1916—part, Lesser Antilles (excl. of Martinique and Santa Lucia) and St. Croix (monog.); Noble, Bull. Mus. Comp. Zool., 60, p. 375, 1916—Guadeloupe and Grande Terre; Peters, Auk, 44, p. 535, 1927—Anguilla; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 529, 1928—part, Dominica; Danforth, Auk, 47, p. 46, 1930—St. Martin and St. Eustatius; idem, Journ. Dept. Agric. Porto Rico, 14, p. 121, 1930—part, St. Croix; Beatty, l.c., 14, p. 144, 1930—St. Croix.

Columbigallina passerina trochila Danforth, Auk, 51, p. 361, 1934—Antigua.

Range.—Lesser Antilles, from Dominica north to Anguilla, and the Island of St. Croix, Virgin Islands.

Field Museum Collection.—15: Lesser Antilles (Desirade, 5; Guadeloupe, 1; Antigua, 2; St. Christopher, 5; St. Bartholomew, 1); Virgin Islands (St. Croix, 1).

Conover Collection.—7: Virgin Islands (St. Croix, 7).

****Columbigallina passerina portoricensis* (Lowe).¹ PUERTO RICO GROUND DOVE.**

Chamaepelia portoricensis Lowe, Ibis, (9), 2, p. 108, 1908—Guanica, Puerto Rico (type in coll. of P. R. Lowe, now in the British Museum, examined); idem, Ibis, 1908, p. 545—St. Thomas (crit.).

Columba passerina (not of Linnaeus) Bryant, Proc. Bost. Soc. N. H., 10, p. 257, 1866—Porto Rico; Sundevall, Oefvers. Vetensk.-Akad. Handl., 26, p. 601, 1869—Porto Rico.

Chamaepelia trochila (not of Bonaparte) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 378—St. Thomas.

Chamaepelia trochila Taylor, Ibis, 1864, p. 171—Porto Rico and St. Thomas (crit.).

Chamaepelia passerina Gundlach, Journ. Orn., 22, p. 313, 1874—Porto Rico; idem, l.c., 26, pp. 161, 186, 1878—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 349, 1878—Porto Rico (habits); Ridgway, Proc. U. S. Nat. Mus., 7, p. 172, 1884—St. Thomas; Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. h', l'-p', Tortola, Virgin Gorda, St. Thomas, and Porto Rico; Nicoll, Ibis, 1904, p. 576—St. Thomas.

Columbigallina passerina Cory, Auk, 7, pp. 374, 375, 1890—Anegada, Tortola, and Virgin Gorda; idem, Cat. W. Ind. Bds., p. 97, 1892—part, Porto Rico, Tortola, Virgin Gorda, and Anegada; Bowditch, Auk, 19, p. 361, 1902—part, Porto Rico.

Chaemepelia passerina trochila Todd, Ann. Carnegie Mus., 8, p. 558, 1913—part, Porto Rico and Virgin Islands (monog.); Ridgway, Bull. U. S. Nat.

¹ *Columbigallina passerina portoricensis* (Lowe): Similar to *C. p. nigrirostris* in coloration, but basal two-thirds of bill bright crimson.

Birds from St. Thomas and St. John are like those from Puerto Rico. Specimens from Virgin Gorda sometimes have a smaller amount of crimson at the base of the bill, thus verging toward *nigrirostris*.

Additional material examined.—Puerto Rico (Guanica Lagoon), 12; St. Thomas, 6; Virgin Gorda, 6; Tortola, 1.

Mus., 50, Part 7, p. 412, 1916—part, Anegada, Virgin Gorda, Tortola, St. John, St. Thomas, Culebra, Vieques, and Porto Rico; Wetmore, Bull. U. S. Dept. Agr., 326, p. 49, 1916—Porto Rico, Vieques, and Culebra (habits, food); idem, Auk, 33, p. 411, 1916—Vieques; idem, Auk, 34, p. 59, 1917—Culebra, Culebrita, and Louis Peña; Struthers, Auk, 40, p. 474, 1923—Puerto Rico; Danforth, Journ. Dept. Agric. Porto Rico, 10, p. 81, 1926—Cartagena Lagoon, Porto Rico; Wetmore, Sci. Surv. Porto Rico and Virgin Islands, 9, p. 398, 1927—Porto Rico and Virgin Islands (excl. of St. Croix) (monog.); Danforth, Journ. Dept. Agric. Porto Rico, 14, p. 121, 1930—part, St. Thomas, St. Jan, Tortola, Salt Island, and Virgin Gorda; idem, l.c., 15, p. 68, 1931—Guanica Lagoon, Porto Rico.

Chamaepelia jamaicensis (not of Maynard) Lowe, Ibis, 1908, p. 111—part, St. Thomas; idem, Ibis, 1908, p. 545 (crit.).

Columbigallina passerina portoricensis Danforth, Journ. Agric. Univ. Puerto Rico, 19, pp. 455, 469, 1935—Culebra, Cayo Norte, Tortola, Little Saba, Jost van Dyke, and Beef Island, Virgin Islands; idem, l.c., p. 483, 1935 (crit.); Peters, Bds. World, 3, p. 106, 1937 (range).

Range.—Island of Puerto Rico and Virgin Islands except St. Croix (Vieques, Culebra, Culebrita, Cayo Norte, Louis Peña, St. Thomas, Little Saba, St. John, Tortola, Jost van Dyke, Beef Island, Salt Island, Virgin Gorda, and Anegada).

Field Museum Collection.—18: Lesser Antilles (Anegada, 1; Tortola, 5; Virgin Gorda, 8); Puerto Rico (unspecified, 4).

Conover Collection.—11: Virgin Islands (St. Thomas, 3; St. John, 4; Tortola, 4).

****Columbigallina passerina insularis* Ridgway. CUBAN GROUND DOVE.**

Columbigallina passerina insularis Ridgway, Proc. U. S. Nat. Mus., 10, p. 574, 1888—Grand Cayman Island, Caribbean Sea (type in U. S. National Museum); Cory, Bds. W. Ind., p. 297, 1889—Grand Cayman and Cayman Brac (crit.); Fisher and Wetmore, Proc. U. S. Nat. Mus., 79, art. 10, p. 7, 1931—Grand Cayman; Wetmore, l.c., 81, art. 2, p. 20, 1932—Cuba (Gibara), Petite Cayemite Island, Ile à Vache, and Gonave Island; idem and Lincoln, l.c., 82, art. 25, p. 34, 1934—Ile à Vache and Beata Island; Danforth, Journ. Agric. Univ. Puerto Rico, 19, p. 427, 1935—Cuba (Sancti Spiritus, Guane); Peters, Bds. World, 3, p. 105, 1937 (range).

Columba passerina (not of Linnaeus) d'Orbigny, in Sagra, Hist. Nat. Cuba, Ois., p. 179, 1839—Cuba; Lembeye, Aves Isla Cuba, p. 132, 1850—Cuba; Bryant, Proc. Bost. Soc. N. H., 11, p. 96, 1867—Dominican Republic and Haiti.

(?)*Chamaepelia hortulana* (Württemberg MS.) Hartlaub, Naumannia, 2, (2), p. 56, 1852—Haiti.¹

¹ The characterization, "grösser als *passerina*," hardly takes this name out of the nomina nuda class. Unfortunately, the whereabouts of the type specimen could not be ascertained by the late Dr. Kurt Lampert, who tried to locate it on our behalf.

- Chamaepelia passerina* Cabanis and Gundlach, Journ. Orn., 4, p. 111, 1856—Cuba (habits); Sallé, Proc. Zool. Soc. Lond., 25, p. 236, 1857—Santo Domingo; Gundlach, Repert. Ffs.-Nat. Cuba, 1, p. 300, 1866—Cuba (habits); idem, Journ. Orn., 22, p. 296, 1874—Cuba (habits); Cory, Bull. Nutt. Orn. Cl., 6, p. 154, 1881—Haiti; idem, Bds. Haiti & San Dom., p. 127, 1884—Haiti; Tristram, Ibis, 1884, p. 168—Dominican Republic; Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. p⁷-r⁷, w⁷, x⁷-a⁸, Hispaniola (Port-au-Prince, San Domingo), Grand Cayman, and Cuba (San Cristóbal); Christy, Ibis, 1897, p. 335—La Vega, Dominican Republic; Nicoll, Ibis, 1904, p. 585—Grand Cayman.
- Columbigallina passerina* Cory, Auk, 3, p. 502, 1886—Grand Cayman; idem, Auk, 6, p. 32, 1889—Cayman Brac; idem, Auk, 8, p. 294, 1891—Cuba; idem, Auk, 9, p. 272, 1892—Cuba; idem, Cat. W. Ind. Bds., pp. 97, 139, 1892—part, Cuba, Isle of Pines, Cayman Islands, and Hispaniola; Chapman, Bull. Amer. Mus. N. H., 4, p. 292, 1892—Trinidad, Cuba (crit.); Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 24, 1896—Santo Domingo.
- Columbigallina passerina aflavida* Palmer and Riley, Proc. Biol. Soc. Wash., 15, p. 23, 1902—San Diego de los Baños, Cuba (type in U. S. National Museum); Bangs and Zappey, Amer. Natur., 39, p. 197, 1905—Callebonita, Hospital, Jucaro, and San Juan, Isle of Pines.
- Chamaepelia insularis* Lowe, Ibis, 1908, p. 113—Grand Cayman (crit.).
- Chamaepelia axantha* Lowe, Ibis, 1908, p. 115—new name for *Columbigallina passerina aflavida* Palmer and Riley.
- Chamaepelia jamaicensis* (not of Maynard) Lowe, Ibis, 1908, p. 111—part, Cayman Islands; idem, Ibis, 1909, p. 341—Grand Cayman; idem, Ibis, 1911, p. 145—part, Cayman Islands.
- Chaemepelia passerina aflavida* Todd, Ann. Carnegie Mus., 8, p. 561, 1913—Cuba and Haiti (monog.); idem, l.c., 10, p. 222, 1916—Bibijagua, Los Indios, and Nueva Gerona, Isle of Pines; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 415, 1916—Cuba and Haiti (monog.); Danforth, Auk, 46, p. 336, 1929—Hispaniola; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 351, 1929—San Juan, Haiti.
- Chaemepelia passerina insularis* Todd, Ann. Carnegie Mus., 8, p. 564, 1913—Cayman Islands (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 417, 1916—Grand Cayman (monog.); Bangs, Bull. Mus. Comp. Zool., 60, p. 307, 1916—Grand Cayman, Little Cayman, and Cayman Brac (crit.); Peters, l.c., 61, p. 407, 1917—Monte Cristi and Sosúa, Dominican Republic; Barbour, Mem. Nutt. Orn. Cl., 6, p. 75, 1923—Cuba; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 199, 1931—Hispaniola (monog.).
- Chamaepelia passerina insularis* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 499, 1928—Port-au-Paix, Haiti.

Range.—Islands of Hispaniola, Cuba, Isle of Pines, and the Cayman Islands (Grand Cayman, Little Cayman, Cayman Brac) in the Greater Antilles.¹

¹ Birds from Cuba (*aflavida*) are clearly inseparable from those of the Cayman Islands (cf. Bangs, l.c., p. 307), while Hispaniolan skins average somewhat smaller and have the red at the base of the bill slightly more extensive.

Field Museum Collection.—99: Cuba (San Diego de Los Baños, Pinar del Rio, 1); Dominican Republic (Maniel, Azua, 23; La Vega, La Vega, 3; Puerto Plata, Puerto Plata, 7; Santo Domingo City, Santo Domingo, 8; Honduras, Santo Domingo, 9; San Cristóbal, Santo Domingo, 10; Fuerte Resoli, Santo Domingo, 1; Catarrey, Santo Domingo, 3); Haiti (Jacmel, 2; Le Coup, 2; Kenscoff, 1); Cayman Brac, 9; Grand Cayman, 18; Little Cayman, 2.

Conover Collection.—11: Isle of Pines (La Vega, 2); Cuba (Artemisa, Pinar del Rio, 5; Matanzas, Matanzas, 4).

Columbigallina passerina navassae (Wetmore).¹ NAVASSA GROUND DOVE.

Chaemepelia passerina navassae Wetmore, Proc. Biol. Soc. Wash., 43, p. 149, 1930—Navassa Island (type in U. S. National Museum); idem and Swales, Bull. U. S. Nat. Mus., 155, p. 202, 1931—Navassa Island.

Columbigallina passerina navassae Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 21, 1932—Navassa Island (descr.); Peters, Bds. World, 3, p. 106, 1937 (range).

Range.—Navassa Island, off Hispaniola, Greater Antilles.

***Columbigallina passerina jamaicensis** Maynard. JAMAICAN GROUND DOVE.

Columbigallina jamaicensis Maynard, Appendix to Cat. Bds. W. Ind., "1899," p. 34, pub. 1900—Jamaica ("types in the Bryant Collection"; cotypes, from Spanish Town, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 164, 1930).

Chamaepelia passerina (not *Columba passerina* Linnaeus) Gosse, Bds. Jamaica, p. 311, 1847—Spanish Town, Jamaica; Sclater, Proc. Zool. Soc. Lond., 1861, p. 80—Jamaica; March, Proc. Acad. Nat. Sci. Phila., 1863, p. 302—Jamaica (habits); Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. s⁷-v⁷, Jamaica; Lowe, Ibis, 1908, p. 111—part, Jamaica (crit.).

Columbigallina passerina Cory, Cat. W. Ind. Bds., pp. 97, 139, 1892—part, Jamaica; Scott, Auk, 9, p. 124, 1892—Jamaica (crit., habits); Field, Auk, 11, p. 123, 1894—Port Henderson, Jamaica.

Chaemepelia passerina jamaicensis Todd, Ann. Carnegie Mus., 8, p. 566, 1913—Jamaica (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 421, 1916—Jamaica (monog.); Danforth, Auk, 45, p. 484, 1928—Black River, Jamaica.

Columbigallina passerina jamaicensis Peters, Bds. World, 3, p. 105, 1937 (range).

Range.—Island of Jamaica, Greater Antilles.

Field Museum Collection.—2: Jamaica (Priestman's River, 2).

¹ *Columbigallina passerina navassae* (Wetmore): Very similar to *C. p. insularis*, but on average slightly smaller and paler, less brownish above and paler below (Wetmore, l.c.).

***Columbigallina passerina exigua** Riley.¹ INAGUA GROUND DOVE.

Columbigallina passerina exigua Riley, Proc. U. S. Nat. Mus., 29, p. 171, 1905—Mona Island, near Porto Rico (type in U. S. National Museum); Peters, Bds. World, 3, p. 106, 1937 (range).

Columbigallina passerina (not *Columba passerina* Linnaeus) Cory, Cat. W. Ind. Bds., p. 97, 1892—part, Great Inagua and Mona Islands; Bowdish, Auk, 19, p. 361, 1902—part, Mona Island (nesting habits).

Chamaepelia exigua Lowe, Ibis, 1908, p. 115—Mona Island (crit.).

Chaemepelia passerina exigua Todd, Ann. Carnegie Mus., 7, p. 417, 1911—Alfred Sound and Mathewtown, Great Inagua (crit.); Worthington, l.c., p. 450, 1911—Great Inagua; Todd, l.c., 8, p. 571, 1913—Mona Island and Great Inagua (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 420, 1916 (monog.); Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 402, 1927—Mona Island.

Range.—Mona Island (off Puerto Rico), in the Greater Antilles, and Great Inagua, in the southern Bahamas.

Field Museum Collection.—31: Bahamas (Great Inagua, 15; Preigs, Great Inagua, 1; Horse Pond, Great Inagua, 1); Puerto Rico (Mona Island, 14).

***Columbigallina passerina bahamensis** (Maynard).² BAHAMA GROUND DOVE.

Chamaepelia bahamensis Maynard, Amer. Exchange and Mart, 3, No. 3, p. 33, Jan. 15, 1887; idem, l.c., 3, No. 6, p. 69, Feb. 5, 1887—Bahama Islands=Nassau, New Providence (no type specified; cotypes now in British Museum; cf. Lowe, Ibis, 1908, p. 112); idem, Bds. East. N. Amer., p. 252, 1895—New Providence (Nassau), Andros, and (?)Florida (Enterprise); Lowe, Ibis, 1908, p. 112 (crit.).

Chamaepelia passerina (not *Columba passerina* Linnaeus) Cory, Bds. Bahamas, p. 139, 1880—Bahamas (descr.); Salvadori, Cat. Bds. Brit. Mus., 21, p. 473, 1893—part, spec. b^s-f^s, Bermudas.

Columbigallina passerina Northrop, Auk, 8, p. 76, 1891—Andros and New Providence (habits); Cory, Auk, 8, pp. 294, 295, 296, 297, 298, 1891—New

¹ *Columbigallina passerina exigua* Riley is very nearly like *C. p. bahamensis*, but decidedly smaller, and coloration paler throughout. The distribution of this form is remarkable. While birds from Great Inagua, except for their slightly longer wings and tail, appear indeed to be indistinguishable from those of far distant Mona Island, the case requires further investigation with the help of carefully collected fresh material in exactly comparable plumage.

² *Columbigallina passerina bahamensis* (Maynard), a very unsatisfactory race, is exceedingly close to *C. p. insularis* and perhaps not worthy of recognition. The distinctness of the Bermuda race which *might* have been introduced from the Bahamas, has been much discussed. Ridgway does not admit it at all, but Lowe considers it "readily recognizable." Todd, who studied the question very carefully, proposes to unite the Bahaman and Bermudan races, and in default of Bermudan material the writers have followed this course.

Providence, Berry Island, Bimini Island, Caicos Island, and Abaco; idem, Auk, 9, p. 48, 1892—Mariguana; idem, Cat. W. Ind. Bds., p. 97, 1892—part, Bahamas (excl. Great Inagua); Bonhote, Ibis, 1899, p. 517—New Providence; idem, Ibis, 1903, p. 299—New Providence and Little Abaco (habits, crit.).

Columbigallina passerina bahamensis Ridgway, Auk, 8, pp. 334, 336, 337, 338, 339, 1891—Abaco, Eleuthera, Cat Island, Watlings Island, Rum Cay, Green Cay, and Concepción Island; Verrill, Amer. Journ. Sci., (4), 12, p. 64, 1901—Bermuda; Allen, Auk, 22, pp. 123, 133, 1905—Great Bahama, Abaco, Elbow Cay, Great Guana Cay, Moraine Cay, Stranger Cay, and Great Sale Cay (habits); Riley, l.c., 22, p. 354, 1905—New Providence, Eleuthera, Cat Island, Watlings Island, Long Island, and Abaco; idem, in Shattuck, The Bahama Islands, pp. 352, 362, 1905—Great Bahama, Abaco, Little Abaco, Biminis, Berry Islands, New Providence, Andros, Green Cay, Eleuthera, Current Island, Cat Island, Concepción Island, Rum Cay, Watlings Island, Long Island, Acklin Island, Plana Cays, and Bird Rock; Peters, Bds. World, 3, p. 105, 1937 (range).

Columbigallina bahamensis Bangs, Auk, 17, p. 286, 1900—Nassau, New Providence, and Current Island.

Columbigallina bermudiana Bangs and Bradlee, Auk, 18, p. 250, 1901—Hamilton, Bermuda (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 165, 1930 (crit.).

Chamaepelia bermudiana Lowe, Ibis, 1908, p. 113—Bermudas (crit.).

Chaemepelia passerina bahamensis Todd, Ann. Carnegie Mus., 7, p. 416, 1911—New Providence (crit.); Worthington, l.c., p. 450, 1911—New Providence, Cat Island, Watlings Island, Andros, and Abaco; Todd, l.c., 8, p. 568, 1913—Bahama Islands and Bermuda (monog.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 418, 1916 (monog.).

Columbigallina passerina bermudiana Bradlee, Mowbray, and Eaton, Proc. Bost. Soc. N. H., 39, p. 326, 1931—Bermudas.

Range.—Bahama Islands (except Great Inagua) and Bermuda.

Field Museum Collection.—22: Bahamas (Abaco, 2; Bird Rock, Acklin, 1; Andros, 4; Bimini, 1; Caicos, 1; eastern portion, Eleuthera, 2; northern portion, Eleuthera, 1; interior, Eleuthera, 3; Great Bahama, 2; southern portion, Mariguana, 1; Nassau, New Providence, 4).

****Columbigallina minuta minuta* (Linnaeus). PLAIN-BREASTED GROUND DOVE.**

Columba minuta Linnaeus, Syst. Nat., 12th ed., 1, p. 285, 1766—based on "Turtur parvus fuscus americanus" Brisson, Orn., 1, p. 116, pl. 8, fig. 2; "San Domingo," errore; Cayenne substituted as type locality by Berlepsch and Hartert (Nov. Zool., 9, p. 119, 1902); Temminck and Knip, Les Pigeons, 1, Colombi-gallines, p. 28, pl. 16, 1811—French Guiana, Paraguay, "Caribbean Islands," "Porto Rico," and "Santo Domingo"; Wagler, Syst. Av., 1, fol. 17, spec. 89, 1827—part, descr. of adult, Guiana, Brazil, Paraguay, and "Caribbean Islands."

- Columba grisea* Bonnaterre, Tabl. Enc. Méth., Orn., 1, livr. 51, p. 252, 1792—based on "La Tourterelle de Cayenne" Holandre, Abrégé d'Hist. Nat., 2, p. 230, 1790; Cayenne.
- Chaemepelia minuta* Peale, U. S. Expl. Exp., 8, p. 207, 1848—Callao, Peru; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 354, 1916—Ciudad Bolívar, Orinoco, Venezuela.
- Peristera chalcostigma* Reichenbach, Syn. Av. Columbariae, Nov., No. 6, pl. 245b, figs. 3533–34, Oct. 1, 1851 (no locality).
- Chamaepelia amazilia* Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 21, Jan., 1855—Peru (type, from Lima, in Paris Museum examined); idem, Consp. Gen. Av., 2, sig. 10, "Dec. 5, 1854," p. 78, "April 15, 1855" [=1857]—Peru; Sclater, Proc. Zool. Soc. Lond., 1866, p. 100—Lima, Peru; Sclater and Salvin, l.c., 1867, p. 753—Xeberos, Peru; Pelzeln, Orn. Bras., 3, p. 277, 1870—São Paulo (Marambicú, Itararé) and Matto Grosso (Cuyabá, Engenho do Gama, [Villa Bella de] Matto Grosso); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 306—Xeberos, Peru; Taczanowski, l.c., 1874, p. 555—Lima, Peru.
- Chamaepelia griseola* (not *Columbina griseola* Spix) Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 17—Maranura, Urubamba, Peru; Forbes, Ibis, 1881, p. 357—Pernambuco (Recife) and Parahyba, Brazil; Taczanowski, Orn. Pér., 3, p. 244, 1886—Peru (Xeberos, Lima, Maranura); Salvin, Ibis, 1886, p. 173—Roraima and Rio Yuruari, southeastern Venezuela.
- Columbigallina griseola* Berlepsch, Journ. Orn., 35, p. 34, 1887—Rio Pilcomayo, Paraguay; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 394—Lima, Peru (eggs descr.); Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso.
- Chamaepelia minuta* Salvadori, Cat. Bds. Brit. Mus., 21, p. 481, 1893—part, spec. n-d, Trinidad, "Martinique," British Guiana (Rio Yuruari, Quonga, Annai), Brazil (Pernambuco, Bahia, Chapada), and Peru (Xeberos, Lima); Ihering, Rev. Mus. Paul., 5, "1901," p. 285, 1902—Piracicaba, São Paulo, and Bahia; Nicoll, Ibis, 1904, p. 40—Bahia; Penard, Vog. Guyana, 1, p. 339, 1908—Surinam; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—Pernambuco (Pão d'Alho, near Recife), Bahia (Barrinha; Joazeiro; Barra do Rio Grande; Santa Rita, Rio Preto), and Piahy (Estreito, Rio Parnahyba).
- Columbigallina minuta* Berlepsch and Hartert, Nov. Zool., 9, p. 119, 1902—Ciudad Bolívar, Orinoco, Venezuela; Berlepsch and Stolzmann, Orn., 13, p. 100, 1906—Santa Ana, Urubamba, Peru; Ihering, Cat. Faun. Braz., 1, p. 22, 1907—São Paulo (Piracicaba, Victoria, Botucatú) and Bahia; Berlepsch, Nov. Zool., 15, p. 295, 1908—Cayenne; Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Alto Paraná; idem, Faun. Parag., p. 36, 1914—Alto Paraná, Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 63, 1914 (range); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 48, 68, 1926—Ceará and Maranhão (São Bento).
- Chaemepelia minuta minuta* Todd, Ann. Carnegie Mus., 8, p. 573, 1913 (monog.); Chubb, Ibis, 1919, p. 40—Trujillo, Libertad, and Chosica, Lima, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 47, 1921—Santa Ana and Idma, Urubamba, Peru; Naumburg, Bull. Amer. Mus. N. H.,

60, p. 68, 1930—Palmiras and Urucúm, Matto Grosso; Pinto, Rev. Mus. Paul., 17, (2), p. 712, 1932—Tres Lagôas, Matto Grosso.

Columbina grisea Dabbene, Bol. Soc. Physis, 1, p. 253, 1913—Alto Paraná (ex Bertoni); Chubb, Bds. Brit. Guiana, 1, p. 43, 1916—upper Takutu Mountains, Abary River, Roraima, Yuruari River, Annai, Quonga, and Georgetown.

Chamaepelia minuta minuta Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 467, 1929—Maranhão (Codó, Cocos; Victoria and Fazenda Inhúma, Alto Parnahyba), Piauhý (Arára, Ibiapaba), and Ceará (Varzea Formosa) (crit.).

Columbigallina minuta minuta Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 259, 1930—Huánuco, Peru (crit.); Roberts, Trop. Agric., 11, p. 92, 1934—Piarco savannah and Brighton, Trinidad; Pinto, Rev. Mus. Paul., 19, p. 65, 1935—Madre de Deus, Corupéba, Joazeiro, and Bomfim, Bahia; idem, l.c., 20, p. 38, 1936—Rio Meia Ponte (Inhúmas), Goyáz; Belcher and Smooker, Ibis, 1936, p. 4—savannahs of Trinidad (nest and eggs descr.); Peters, Bds. World, 3, p. 108, 1937 (range).

Columbigallina minuta amazilia Peters, Bds. World, 3, p. 109, 1937 (range).

Range.—Island of Trinidad; Venezuela (Ciudad Bolívar, Orinoco River);¹ British, Dutch, and French Guiana; Brazil from Pará, Maranhão, Piauhý, and Ceará south and west to São Paulo, Goyáz, and Matto Grosso; Paraguay (Rio Pilcomayo; Villa Concepción; Villa Rica; Horqueta; Alto Paraná); Peru (Pacific coast region from Trujillo to Lima; Huánuco; Xeberos; Santa Ana and Idma, Urubamba Valley).²

Field Museum Collection.—8: British Guiana (Georgetown, 3; unspecified, 1); Peru (Menocucho, Libertad, 3; Huánuco, Huánuco, 1).

Conover Collection.—35: Brazil (Tome-assú, Rio Acará, 6; Codó, Cocos, Maranhão, 2; Victoria, Maranhão, 1; Alto Parnahyba, Maranhão, 2; Ibiapaba, Piauhý, 3; Arára, Piauhý, 1; Varzea Formosa, Ceará, 5); Peru (Huánuco, Huánuco, 3); Paraguay (Villa Rica, 9; Horqueta, 3).

¹ This appears to be the most westerly record from Venezuela. Whether *Chaemepelia griseola* Ernst (Primer Anuario Estadístico, Caracas, p. 310, 1877) from Caracas and Tocoma, really pertains here, as suspected by Mr. Todd, is more than problematic.

² Birds from Brazil agree perfectly with a series from British Guiana and a single old skin from Cayenne, while adult males from Paraguay are generally of a purer, more uniform gray on the head and hind neck. Specimens from the Urubamba Valley (Santa Ana) and Huánuco do not appreciably differ from those of Brazil. Males from the Pacific coast of Peru (*C. amazilia*) average very slightly smaller and duller, but the divergency is completely bridged through individual variation and, in agreement with Mr. Zimmer, we do not see any practical advantage in recognizing a Pacific race.

Twenty-five additional specimens from Brazil (Piauhý, Pernambuco, Bahia, São Paulo, Matto Grosso), one from Cayenne, five from British Guiana (Roraima, Rio Yuruari), seven from Santa Ana, Urubamba, Peru, four from Lima, Peru, and one from Paraguay (Villa Concepción) have been examined.

***Columbigallina minuta elaeodes (Todd).¹ NORTHERN PLAIN-BREASTED GROUND DOVE.**

Chaemepelia minuta elaeodes Todd, Ann. Carnegie Mus., 8, p. 578, 1913—Buenos Aires, Costa Rica (type in the Carnegie Museum, Pittsburgh); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 422, 1916—part, Colombia to Costa Rica (monog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 209, 1917—Dabeiba, lower Atrato, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 242, 1918—Miraflores, Panama; Hallinan, Auk, 41, p. 310, 1924—Gatún, Mindi, and Corozal, Panama.

Chamaepelia amazilia (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 24, p. 30, 1856—Bogotá, Colombia; Sclater and Salvin, l.c., 1864, p. 370—Lion Hill, Panama; Wyatt, Ibis, 1871, p. 383—Ocaña and Herradura, Santander, Colombia.

Chamaepelia granatina (not of Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1862—Panama Railroad.

Chamaepelia minuta (not *Columba minuta* Linnaeus) Salvadori, Cat. Bds. Brit. Mus., 21, p. 481, 1893—part, spec. f-m, Panama and Bogotá; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 252, 1902—part, Panama.

Columbigallina minuta Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 214, 1906—savannah of Panama.

Chaemepella minuta Bangs, Auk, 24, p. 292, 1907—Paso Real, Costa Rica.

Chaemepelia minuta Carriker, Ann. Carnegie Mus., 6, p. 399, 1910—Buenos Aires de Terraba, Costa Rica.

Columbigallina minuta elaeodes Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Pacific slope of western Panama; Peters, Bds. World, 3, p. 108, 1937 (range).

Range.—Tropical zone of southwestern Costa Rica (Terraba Valley) south along the Pacific slope of Panama to northern Colombia (Dabeiba, lower Atrato; Ocaña and Herradura, Santander; "Bogotá").

Field Museum Collection.—2: Costa Rica (El Pózo, Rio Terraba, 2).

Conover Collection.—2: Costa Rica (Boruca, Paso Real, 1); Panama (Frances, Chiriquí, 1).

***Columbigallina minuta interrupta (Griscom).² GUATEMALAN PLAIN-BREASTED GROUND DOVE.**

¹ *Columbigallina minuta elaeodes* (Todd): Similar to *C. m. minuta*, but darker throughout, the male more purplish vinaceous below and on the wings, and with the gray of the head more slaty; female more olivaceous above and deeper brownish underneath.

Three Bogotá skins appear to be inseparable from two Panama specimens, and are decidedly darker than any individual in a considerable series from eastern South America.

² *Columbigallina minuta interrupta* (Griscom): Nearest to *C. m. elaeodes*, but more grayish above; the male below less vinaceous; the female duller, hair brown

Chaemepelia minuta interrupta Griscom, Amer. Mus. Nov., 379, p. 4, 1929—Secanquim, Guatemala (type in Dwight Collection, in the American Museum of Natural History, New York).

Chamaepelia minuta (not *Columba minuta* Linnaeus) Salvadori, Cat. Bds. Brit. Mus., 21, p. 481, 1893—part, spec. c-e, Mexico (Atoyác, Vera Cruz) and Guatemala (Retalhuleu); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 252, 1902—part, Atoyác and Retalhuleu.

Chaemepelia minuta Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 80, 1907—Los Amates, Guatemala.

Chaemepelia minuta elaeodes Todd, Ann. Carnegie Mus., 8, p. 578, 1913—part, Vera Cruz to (?) British Honduras; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 422, 1916—part, Mexico (Vera Cruz to Campeche), Guatemala, and (?) British Honduras.

Columbigallina minuta interrupta Griscom, Bull. Amer. Mus. N. H., 64, p. 115, 1932—Guatemala (Secanquim, Chimoan, Finca Chamá, Chipoc); Peters, Bds. World, 3, p. 108, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 192, 1938—Hacienda Zapotitan, El Salvador.

Range.—Southeastern Mexico (Atoyác, Vera Cruz; Montecristo, Tabasco; Campeche), Guatemala, El Salvador (Hacienda Zapotitan), and (?) British Honduras (Belize, Toledo District, Manatee District).

Field Museum Collection.—1: Guatemala (Los Amates, 1).

****Columbigallina buckleyi* (Sclater and Salvin).¹ BUCKLEY'S GROUND DOVE.**

Chamaepelia buckleyi Sclater and Salvin, Proc. Zool. Soc. Lond., 1877, p. 580—Santa Rita, Ecuador (cotypes in Salvin-Godman Collection, now in British Museum); Berlepsch and Taczanowski, l.c., 1883, p. 575—Yaguachi and Guayaquil, Ecuador; *idem*, l.c., 1885, p. 111—Yaguachi, Ecuador; Taczanowski, Orn. Pér., 3, p. 245, 1886—Lechugal, Dept. Tumbes, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 484, pl. 10, fig. 2, 1893—Santa Rita; *idem* and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 35, 1900—Babahoyo, Vinces, and Balzar, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 230, 1932—Isla Silva and Rio San Antonio, Prov. Guayas, Ecuador.

rather than warm drab, with the white area on the chin in both sexes more extensive.

The single female from Los Amates seems to bear out the characters of this form. Although no Mexican material has been available for study, the inhabitants of that region are without much doubt referable to *interrupta*. Birds from British Honduras are stated by Griscom to be intermediate between *elaodes* and *interrupta*, though nearer the latter.

¹ *Columbigallina buckleyi* (Sclater and Salvin), in spite of its pale body coloration and white apical edges to the rectrices, both of which characters remind one of *C. minuta*, seems to be more nearly related to *C. talpacoti*, which it resembles in proportions and black under wing coverts.

Ten additional specimens from western Ecuador (Yaguachi, Babahoyo, Vinces, Rio Jubones, Daule) examined.

Chaemepelia buckleyi Todd, Ann. Carnegie Mus., 8, p. 580, 1913 (monog.); Chapman, Bull. Amer. Mus. N. H., 55, p. 167, 1926—Ecuador (Esmeraldas, coast of Manaví, Chone, Chongoncito, Pallatanga, Puná Island, Guayaquil, Duran, Daule, Portovelo, Santa Rosa, Rio Jubones).

Columbigallina buckleyi Peters, Bds. World, 3, p. 109, 1937 (range).

Range.—Equatorial Arid zone of western Ecuador from Esmeraldas to the Peruvian border (Lechugal, Dept. Tumbez).

Conover Collection.—14: Ecuador (Vinces, Rio Vinces, 1; Milagro, Guayas, 1; Tarasana, Guayaquil, 1; Chongon, Guayaquil, 6; Isla Silva, Prov. de los Rios, 3; Arenillas, El Oro, 2).

***Columbigallina talpacoti talpacoti (Temminck). TALPACOTI DOVE.**

Columba talpacoti Temminck, in Temminck and Knip, Les Pigeons, 1, Colombi-gallines, p. 22, 1811—"l'Amérique méridionale"—Brazil (auct. Brabourne and Chubb, Bds. S. Amer., 1, p. 18, 1913) (type in Paris Museum); idem, Hist. Nat. Pige. Gall., 1, pp. 421, 496, 1813—South America; Wagler, Syst. Av., 1, fol. 17, sp. 86, 1827—Brazil and Paraguay (descr.); Wied, Beitr. Naturg. Bras., 3, (2), p. 465, 1833—Rio de Janeiro, Cabo Frio, and Espirito Santo, Brazil; Tschudi, Arch. Naturg., 10, (1), p. 305, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 275, 1846—Peru; Schomburgk, Reisen Brit. Guiana, 1, p. 394, 1847—Pirara; idem, l.c., 2, p. 490, 1848—sandhills near Georgetown; Euler, Journ. Orn., 15, pp. 189, 190, 196, 198, 1867—Cantagallo, Rio de Janeiro (nesting).

Columba minuta (not of Linnaeus, 1766) Temminck and Knip, Les Pigeons, 1, Colombi-gallines, pl. 12, 1811; Wied, Reise Bras., 2, p. 341 (8vo ed., p. 340), 1821—Isla Cachoeirinha, Rio Belmonte, Bahia.

Columbina caboccolo Spix, Av. Spec. Nov. Bras., 2, p. 58, pl. 75a, fig. 1 (male), 1825—no locality indicated (type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 697, 1906).

Chaemepelia cinnamomina Swainson, Nat. Hist. Class. Bds., 2, p. 349, 1837—based on Spix, Av. Spec. Nov. Bras., 2, pl. 75a, fig. 1.

Ch[amaepelia] godinae Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 22, Jan., 1855—"du nord-ouest de l'Amérique méridionale et peut-être même de l'Amérique centrale," errore (descr. of female; type from Bolivia, coll. by d'Orbigny, in Paris Museum).

Talpacotia godina Bonaparte, Consp. Gen. Av., 2, sig. 10, "Dec. 5, 1854," p. 79, "April 15, 1855" [=1857]—Bolivia and Brazil (descr. of female); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 555—Amable Maria, Peru; idem, l.c., 1879, p. 243—Guajango, Marañón, Peru.

Columbina talpacoti Darwin, Zool. Beagle, 3, Birds, p. 116, 1841—Rio de Janeiro; Hellmayr, Nov. Zool., 17, p. 416, 1910—Calama, Rio Madeira, and Maroins, Rio Machados, Brazil; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 80, 96, 122, 1910—Peixe-Boi, Pará localities, and Mexiana, Brazil; Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 287, 1912—Villa Rica, Paraguay; Chubb, Bds. Brit. Guiana, 1, p. 44,

1916—Ituribisci River, Supenaam, Bartica, Bonasika River, Great Falls of Demerara, Abary River, Anarica River, Quonga, and Annai; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 599, 1924—Prov. Buenos Aires; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 117, 1926—Salto Guayra, Paraná.

*Chamaepelia*¹ *talpacoti* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 744, "1848"—coast and savannas; Burmeister, Syst. Uebers. Th. Bras., 3, p. 297, 1856—Rio de Janeiro; Euler, Journ. Orn., 15, p. 417, 1867—Cantagallo; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 591—Rio Tocantins; Pelzeln, Orn. Bras., 3, p. 277, 1870—Rio de Janeiro (Sapitiba, Rio), São Paulo (Ypanemá, Tejuco), Matto Grosso (São Vicente), Forte do Rio Branco, and Pará; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 56—Lagõa Santa, Minas Geraes; Hamilton, Ibis, 1871, p. 309—Itapetininga, São Paulo; Layard, Ibis, 1873, p. 396—Nazaré, Pará; Berlepsch, Journ. Orn., 22, p. 247, 1874—Blumenau, Santa Catharina; Allen, Bull. Essex Inst., 8, p. 82, 1876—Santarém and Rhomes, Rio Tapajóz; Forbes, Ibis, 1881, p. 357—Pernambuco and Parahyba; White, Proc. Zool. Soc. Lond., 1882, p. 626—Orán, Salta, and Concepción, Misiones; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 176, 1885—Taquara do Mundo Novo and Arroyo Grande, Rio Grande do Sul; Salvin, Ibis, 1886, p. 174—British Guiana; Taczanowski, Orn. Pér., 3, p. 426, 1886—Amable Maria and Guajango, Peru; Dalgleish, Proc. Roy. Phys. Soc. Edin., 10, p. 86, 1889—Ytañú, Paraguay (eggs descr.); Sclater and Hudson, Arg. Orn., 2, p. 144, 1889 (White's localities); Boucard and Berlepsch, The Humming Bird, 2, p. 41, 1892—Porto Real, Rio de Janeiro; Kerr, Ibis, 1892, p. 147—Rio Pilcomayo, Paraguay; Salvadori, Cat. Bds. Brit. Mus., 21, p. 485, 1893—British Guiana (Quonga, Annai, Demerara), Cayenne, Brazil (Ceará, Pará, Pernambuco, Nova Friburgo, São Paulo, Bahia, Rio, Chapada), and Bolivia; Goeldi, Ibis, 1897, p. 164—Lagõa Grande do Amapá, northern Pará; Ihering, Rev. Mus. Paul., 2, p. 166, 1897—Villa Bella, Ilha de São Sebastiao, São Paulo; idem, l.c., 3, p. 400, 1899—São Sebastião, São Paulo; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 33, 1897—Caiza, Chaco Boliviano; idem, l.c., 15, No. 378, p. 14, 1900—Urucúm, Matto Grosso; Ihering, Rev. Mus. Paul., 4, p. 163, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Kerr, Ibis, 1901, p. 234—Paraguayan Chaco; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 217, 1902—Rio Salf, Tucumán; Nicoll, Ibis, 1904, p. 40—Bahia; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Cerrillos, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Rio Salf, Tucumán; Hagmann, Zool. Jahrb. (Syst.), 26, p. 42, 1907—Mexiana; Penard, Vog. Guyana, 1, p. 340, 1908—Surinam; Snethlage, Journ. Orn., 56, pp. 516, 538, 1908—Rio Tapajóz (Goyana) and Rio Tocantins (Alcobaça); Hartert and Venturi, Nov. Zool., 16, p. 263, 1909—Salta (Orán), Buenos Aires (Barracas al Sud), and Misiones (Concepción, Posadas); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—Pernambuco (Pão d'Alho, near Recife) and Bahia (Barra and Ilha Fogo, Rio São Francisco); Chubb, Ibis, 1910, p. 62—Sapucay, Paraguay (plumages, eggs); Grant, Ibis, 1911, p. 460—Rabicho, Rio Paraguay, Matto Grosso; Todd, Ann. Carnegie Mus., 8, p. 582, 1913

¹ Sometimes spelled *Chaemepelia*.

- (monog.); Bangs and Penard, *Bull. Mus. Comp. Zool.*, **62**, p. 45, 1918—Paramaribo, Surinam; Pereyra, *El Hornero*, **3**, p. 161, 1923—Zelaya, Buenos Aires; Stone, *Proc. Acad. Nat. Sci. Phila.*, **80**, p. 151, 1928—Castanhal, Pará; Holt, *Bull. Amer. Mus. N. H.*, **57**, p. 281, 1928—Bemfica, Serra do Itatiaya, Brazil.
- Talpacotia cinnamomea* Bonaparte, *Bull. Soc. Linn. Normandie*, **2**, p. 38, 1857—Cayenne.
- Peristera talpacoti* Schlegel, *Mus. Pays-Bas, Columbæ*, p. 136, 1873—Brazil, Cayenne, Surinam, and Bolivia.
- Columbigallina talpacoti* Allen, *Bull. Amer. Mus. N. H.*, **2**, p. 105, 1889—lower Beni, Bolivia; Riker and Chapman, *Auk*, **8**, p. 162, 1891—Santarém, Rio Tapajóz; Allen, *Bull. Amer. Mus. N. H.*, **5**, p. 149, 1893—Chapada, Matto Grosso; Berlepsch and Stolzmann, *Proc. Zool. Soc. Lond.*, 1902, (2), p. 44—La Merced, Chanchamayo, Peru; Ihering, *Cat. Faun. Braz.*, **1**, p. 22, 1907—São Paulo (Ypiranga, São Sebastião, São José de Rio Pardo, Jaboticabal); Berlepsch, *Nov. Zool.*, **15**, p. 295, 1908—Cayenne; Dabbene, *Anal. Mus. Nac. Buenos Aires*, **18**, p. 193, 1910 (range in Argentina); idem, *Bol. Soc. Physis*, **1**, p. 253, 1913 (range in Argentina and Paraguay); Bertoni, *Anal. Soc. Cient. Arg.*, **75**, p. 69, 1913—Argentina; idem, *Faun. Parag.*, p. 36, 1914—Alto Paraná, Paraguay; Sneath, *Bol. Mus. Goeldi*, **8**, p. 65, 1914—Pará, Rio Tocantins (Alcobaça), Rio Tapajóz (Goyana), Arumanduba, Serra de Ereré, and Rio Maecurú, Brazil; idem, *Bol. Mus. Nac. Rio de Janeiro*, **2**, No. 6, p. 48, 1926—Ceará.
- Camaepelia talpacoti* Ihering, *Anuario Est. Rio Grande do Sul*, **16**, p. 146, 1899—Mundo Novo, Rio Grande do Sul.
- Chamaepelia talpacoti* [sic] Ménégau, *Rev. Franç. d'Orn.*, 1917, p. 25—Caceres and Poconé, Matto Grosso.
- Columbigallina rufipennis* (not *Chamaepelia rufipennis* Bonaparte) Beebe, *Our Search for a Wilderness*, pp. 131, 139, 389, 1910—Georgetown and Hoory Creek, British Guiana.
- Columbina rufipennis* Chubb, *Bds. Brit. Guiana*, **1**, p. 45, 1916 (ex Beebe).
- Chaemepelia arthuri* Bangs and Penard, *Bull. Mus. Comp. Zool.*, **62**, p. 45, 1918—vicinity of Paramaribo, Surinam (type in Museum of Comparative Zoology, Cambridge, Mass.).
- Chamaepelia talpacoti talpacoti* Dinelli, *El Hornero*, **4**, p. 276, 1929—Tucumán (visitant); Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, **12**, p. 468, 1929—Goyás (Philadelphia, lower Tocantins), Maranhão (Carolina, Barra da Corda, Fazenda Inhúma, São Francisco, São Bento, Codó), Piauí (Arára, Ibiapaba), and Ceará (Varzea Formosa) (crit.); Naumburg, *Bull. Amer. Mus. N. H.*, **60**, p. 68, 1930—Urucúm, Matto Grosso, and Rio Solimões, Brazil; Laubmann, *Wiss. Erg. Deuts. Gran Chaco Exp.*, *Vögel*, p. 88, 1930—Formosa (San José, Yuncá Viejo, Tapikiolé) and Bolivia (Tunamá, Santa Cruz); Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, **19**, p. 348, 1932—Angol, Malleco, Chile (accidental); Pinto, *Rev. Mus. Paul.*, **17**, (2), p. 712, 1932—Valparaíso, São Paulo, and Sant' Anna do Paranaíba, Matto Grosso.
- Columbigallina talpacoti talpacoti* Pinto, *Rev. Mus. Paul.*, **19**, p. 66, 1935—Madre de Deus, Cahype, Corupéba, Rio Jucurucú, Bomfim, and Joazeiro,

Bahia; idem, l.c., 20, p. 39, 1936—Jaraguá, Goyáz; Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 349, p. 6, 1937—Arary, Marajó, Brazil; Peters, Bds. World, 3, p. 108, 1937 (range).

Range.—British, Dutch, and French Guiana and south through Brazil, eastern Peru, and eastern Bolivia to Rio Grande do Sul, Paraguay, and northern Argentina (Tucumán; Formosa; Misiones; Barracas al Sud and Zelaya, Buenos Aires); accidental in Chile (one record from Angol, Malleco).¹

Field Museum Collection.—27: British Guiana (Buxton, E. C., Demerara, 5); Dutch Guiana (Paramaribo, 1); Brazil (Bôa Vista, Rio Branco, 2; Serra Baturité, Ceará, 1; Barra do Corda, Maranhão, 2; Arára, Piauí, 1; Macaco Secco, Bahia, 1; São Marcello, Bahia, 1; Therezopolis, Rio de Janeiro, 2; Araçatuba, São Paulo, 2; Urucúm de Corumbá, Matto Grosso, 1; Vaccaria, Matto Grosso, 1; Fazenda Morungaba, Paraná, 1); Paraguay (Villa Rica, 2); Peru (San Ramón, Junín, 3); Chile (Angol, Cautín, 1).

Conover Collection.—65: British Guiana (Buxton, E. C., Demerara, 1); Brazil (Resacca, Rio Capim, 1; Ipomonga, Rio Capim, 4; Boca de Channel Piava, Pará, 7; Boim, Rio Tapajóz, 5; Obidos, Pará, 6; Rio Manacapurú, Amazonas, 1; Carolina, Maranhão, 1; Alto Parnahyba, Maranhão, 1; São Francisco, Maranhão, 3; Codó, Cocos, Maranhão, 1; Philadelphia, Goyáz, 1; Varzea Formosa, Ceará, 4; Arára, Piauí, 1; Ibiapaba, Piauí, 1; Victoria, São Paulo, 1); Paraguay (Villa Rica, 5; Horqueta, 3; east side of Paraguay River, 2; 265 km. west of Puerto Casado, 1); Bolivia (Buenavista, Santa Cruz, 3; Cercado, Santa Cruz, 1; Rio Surutú, Santa Cruz, 2; Nueva Moka, Santa Cruz, 2); Argentina (Santa Ana, Misiones, 5; Puerto Segundo, Misiones, 1; Concepción, Tucumán, 1).

****Columbigallina talpacoti cauae* (Chapman).² CAUCA TALPACOTI DOVE.**

Chaemepelia rufipennis cauae Chapman, Bull. Amer. Mus. N. H., 34, p. 367, 1915—La Manuelita, near Palmira, Cauca Valley, Colombia (type in the

¹ We are unable to make out any geographic races within the area circumscribed above, birds from the Guianas being to all intents identical with series from southern Brazil and Paraguay. *C. arthuri*, based on specimens with cinnamomeous edging to the inner webs of the primaries and some rufous admixture on the under wing coverts, is merely an individual variant and not confined to any particular district. In a series from São Paulo we find every gradation from the stage with plain dusky primaries and uniform black under wing coverts to the variety described as *C. arthuri*, and some have even more rufous on the wings than a topotype from Surinam.

Ninety-two additional specimens from the whole range examined.

² *Columbigallina talpacoti cauae* (Chapman): Male not certainly distinguishable from *C. l. rufipennis*, but on average paler below and browner above; female

American Museum of Natural History, New York); idem, l.c., 36, p. 209, 1917—Cali, La Manuelita, below Miraflores, and Rio Frio, Colombia.

Chaemepelia rufipennis rufipennis (not of Bonaparte) Todd, Ann. Carnegie Mus., 8, pp. 586, 602, 1913—part, Cauca Valley, Cali, Palmira, and east of Palmira, Colombia.

Columbigallina talpacoti caucae Peters, Bds. World, 3, p. 108, 1937 (range).

Range.—Tropical and lower Subtropical zones of the Cauca Valley, western Colombia.

Conover Collection.—4: Colombia (Rio Timbio, Patia, Cauca, 1; Cali, Cauca, 1; El Tambo, Cauca, 1; Rio Patia, Cauca, 1).

****Columbigallina talpacoti rufipennis* (Bonaparte).¹ RED-WINGED TALPACOTI DOVE.**

Ch[amaepelia] rufipennis Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 22, Jan., 1855—environs of Cartagena, Colombia (type presumably in Paris Museum).

Talpacotia rufipennis Bonaparte, Consp. Gen. Av., 2, sig. 10, "Dec. 5, 1854," p. 79, "April 15, 1855" [= 1857]—Cartagena; idem, Icon. Pigeons, pl. 121, 1858—Colombia.

Chamaepelia talpicoti (not *Columba talpacoti* Temminck) Jardine, Ann. Mag. Nat. Hist., 20, p. 374, 1847—Tobago.

Chamaepelia talpacoti Taylor, Ibis, 1864, p. 94—Ciudad Bolívar, Orinoco, Venezuela; Piguet, Mém. Soc. Neuch.-Sci. Nat., 5, p. 806, 1914—Medellin, Colombia.

Chamaepelia rufipennis Selater, Proc. Zool. Soc. Lond., 25, p. 19, 1857—Bogotá.

Chamaepelia rufipennis Selater, Proc. Zool. Soc. Lond., 26, p. 359, 1858—Comayagua, Honduras; Moore, l.c., 27, p. 61, 1859—San Pedro (Honduras) and Petén (Guatemala); Selater, l.c., p. 369, 1859—vicinity of Jalapa, Mexico; idem and Salvin, Ibis, 1859, p. 223—Comayagua, Honduras; Taylor, Ibis, 1860, p. 227—Comayagua; Selater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 370—Lion Hill, Panama; Salvin, l.c., 1867, p. 159—David, Chiriquí; Léotaud, Ois. Trinidad, p. 366, 1866—Trinidad; Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 629—San Esteban, Venezuela; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 179, 1867—David, Chiriquí; idem, l.c., 9, p. 139, 1868—San José, Costa Rica; idem,

differing decidedly by being light Saccardo's umber on the upper parts with but a slight vinaceous tinge on rump and tail coverts and by being less vinaceous tawny on the flight-feathers as well as on flanks and crissum.

More adequate material should be studied.

¹ *Columbigallina talpacoti rufipennis* (Bonaparte) is well-marked by reason of its rufous outer under wing coverts and extensively rufous remiges. Still the appearance of the variety called *C. arthuri*, with indication of a cinnameous quill-lining and some reddish intermixture under the wing, in the range of *C. talpacoti* points to conspecific relationship of these doves.

While birds from eastern Mexico and southern Central America are indistinguishable from those of Colombia and Venezuela, there is a strong tendency in Pacific Guatemala towards the characters of *C. t. eluta*.

l.c., 9, p. 207, 1869—Mérida, Yucatan; Frantzius, Journ. Orn., 17, p. 372, 1869—Orósi, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Veraguas (Chitrá, Calobre) and Chiriquí (Bugába, Mina de Chorchá); Wyatt, Ibis, 1871, p. 383—Ocaña and Bucaramanga, Santander, Colombia; Boucard, Proc. Zool. Soc. Lond., 1878, p. 43—Puntarenas, Costa Rica; Selater and Salvin, l.c., 1879, p. 544—Medellín, Colombia; Salvin and Godman, Ibis, 1880, p. 178—Santa Marta, Colombia; Boucard, Proc. Zool. Soc. Lond., 1883, p. 459—Yucatan; Berlepsch, Journ. Orn., 32, p. 317, 1884—Bucaramanga, Colombia; Tristram, Cat. Coll. Bds., p. 39, 1889—Tobago; Salvin, Ibis, 1889, p. 378—Cozumel Island; Salvadori, Cat. Bds. Brit. Mus., 21, p. 487, 1893—part, spec. a-o, z-w", Mexico (Atoyác, Huatusco, and Playa Vicente, Vera Cruz; Teapa, Tabasco; Izalam, Peto, and Buctzotz, Yucatan; Cozumel Island), British Honduras, Guatemala (El Paraiso, Dueñas, Retalhuleu), El Salvador (La Libertad), Nicaragua (Chinandega, Matagalpa), Costa Rica, Chiriquí (Bugaba, Mina de Chorchá), Veraguas (Chitrá), Panama (Lion Hill, Chepo), Colombia (Santa Marta, Medellín, Bogotá), Venezuela (San Esteban), and Trinidad; idem and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 9, 1899—Punta de Sabana, Darien; Dalmás, Mém. Soc. Zool. France, 13, p. 144, 1900—Tobago; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 253, 1902—part, Mexico (localities in Vera Cruz, Tabasco, and Yucatan) and south through Central America to Panama; Penard, Vog. Guyana, 1, p. 340, 1908—"Guiana" (ex Schlegel), errore.

Chamaepelia rufipennis Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 301, 1862—Panama Railroad.

Chamepelia rufipennis Sumichrast, La Naturaleza, 5, p. 231, 1881—Potrero and Omealca, Vera Cruz.

Peristera rufipennis Schlegel, Mus. Pays-Bas, Columbae, p. 136, 1873—"Guyane" (errore), Caracas, Colombia, and Guatemala.

Chamaepelia talpacoti rufipennis Nutting, Proc. U. S. Nat. Mus., 5, p. 408, 1882—La Palma de Nicoya, Costa Rica.

Columbigallina rufipennis Ridgway, Proc. U. S. Nat. Mus., 8, p. 581, 1885—Cozumel Island; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Las Trojas, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 10, p. 584, 1888—Trujillo, Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 204—Tekanto, Yucatan; Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 146, 1893—Térraba Valley, Costa Rica; Cory, Auk, 10, p. 220, 1893—Tobago; Chapman, Bull. Amer. Mus. N. H., 6, p. 74, 1894—near Princetown, Trinidad; Robinson, Flying Trip to Tropics, pp. 117, 154, 1895—Barranquilla and Honda, Colombia; idem, Proc. U. S. Nat. Mus., 18, p. 660, 1896—Margarita Island; Chapman, Bull. Amer. Mus. N. H., 8, p. 287, 1896—Chichen-Itzá, Yucatan; Phelps, Auk, 14, p. 366, 1897—Cumanacoa and San Antonio [Bermúdez], Venezuela; Bangs, Proc. Biol. Soc. Wash., 12, p. 132, 1898—Santa Marta, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 128, 1900—Bonda, Ciénaga, and Masinga Vieja, Colombia; Bangs, Proc. New Engl. Zool. Cl., 2, p. 15, 1900—Loma del León, Panama; idem, Auk, 18, p. 25, 358, 1901—San Miguel Island and Divalá (Chiriquí), Panama; Berlepsch and Hartert, Nov. Zool., 9, p. 119, 1902—Rio Orinoco (Altagracia, Caicara, Ciudad Bolívar) and La Unión, Caura,

Venezuela; Clark, Auk, 19, p. 261, 1902—El Valle, Margarita Island; Allen, Bull. Amer. Mus. N. H., 21, p. 280, 1905—Bonda, Colombia (nest and eggs); Hellmayr, Nov. Zool., 13, p. 47, 1906—Caparo and Seelet, Trinidad (crit.); Cole, Bull. Mus. Comp. Zool., 50, p. 117, 1906—Chichen-Itzá, Yucatan (nesting, food).

Columbigallina rufipennis rufipennis Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Ceiba, Honduras; Thayer and Bangs, l.c., 46, p. 148, 1905—San Miguel and Saboga Island, Pearl Islands, Panama (crit.); Peters, l.c., 71, p. 298, 1931—Almirante, Changuinola, and Isla Grande, Panama; Darlington, l.c., p. 378, 1931—near Rio Frio, Magdalena, Colombia; Griscom, l.c., 72, p. 322, 1932—Permé, Panama; idem, Bull. Amer. Mus. N. H., 64, p. 115, 1932—Guatemala (Pantaleon, Escuintla; Finca El Cipres; Hacienda California; Ocos; San José; Chimoxan); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 306, 1932—Cantarranas and Lancetilla, Honduras; Roberts, Trop. Agric., 11, p. 92, 1934—Trinidad; Van Tyne, Misc. Pub., Mus. Zool. Univ. Mich., 27, p. 13, 1934—Flores and Pacamon, Petén, Guatemala; Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Panama; Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 414, 1935—Gualan and Quirigua, Guatemala; Belcher and Smooker, Ibis, 1936, p. 5—Trinidad and Tobago (nest and eggs); Deignan, Auk, 53, p. 188, 1936—La Ceiba, Honduras; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 191, 1938—Puerto del Triunfo, Divisadero, Lake Olo-mega, Sonsonate, Lake Guija, Lake Chanmico, San Salvador and Miraflores, El Salvador.

Chamaepella rufipennis rufipennis Bangs, Auk, 24, p. 292, 1907—Boruca, Pózo del Rio Grande, and Barránca [de Puntarenas], Costa Rica.

Columbina rufipennis Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 370, 1908—Pointe Gourde and Carenage, Trinidad; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 178, 1922—Tarouba, La Fortunée, and Princetown, Trinidad.

Chaemepelia rufipennis Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 80, 1907—Los Amates and San José, Guatemala; Cory, l.c., p. 240, 1909—Margarita Island; Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 191, 1913—Pedernales, Orinoco Delta, Venezuela; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 36, 1922—Venezuela (Rio Cogollo; Rio Guachí; Rio Chamá; Encontrados; Orope; Colón, Tachira; Rio Aurare).

Chaemepelia rufipennis rufipennis Carriker, Ann. Carnegie Mus., 6, p. 399, 1910—Costa Rica (Pígres, Puntarenas, Cachí, Miravalles, El Pózo, Boruca); Todd, l.c., 8, p. 586, 1913 (monog.); Peters, Auk, 30, p. 373, 1913—Camp Mengel and Xcopen, Quintana Roo; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 424, 1916 (monog.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 353, 1916—savanna region of the Orinoco River (nest); Chapman, Bull. Amer. Mus. N. H., 36, p. 209, 1917—Colombia (Calamar, Malena, and Chicoral, Magdalena Valley; El Alto de la Paz, Bogotá region); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 242, 1918—Gatún, Panama; Rendahl, Ark. Zool., 12, No. 8, p. 15, 1919—Masaya, Nicaragua; idem, l.c., 13, No. 4, p. 29, 1920—Pearl Islands; Todd and Carriker, Ann. Carnegie Mus., 14, p. 193, 1922—Fundación, Bonda, Buritaca, Don Diego, Mamatoco, and Santa Marta, Colombia (crit.); Griscom, Bull

Mus. Comp. Zool., 69, p. 154, 1929—Cana, Darien; Peters, l.c., p. 406, 1929—Lancetilla and Urraco, Honduras.

Chaemepelia rufipennis eluta (not *Columbigallina r. eluta* Bangs) Todd, Ann. Carnegie Mus., 8, p. 590, 1913—part, eastern Mexico.

Chaemepelia rufipennis nesophila Todd, Ann. Carnegie Mus., 8, p. 590 (foot-note), May 8, 1913—[San Miguel Island], Pearl Islands (type in Museum of Comparative Zoology, Cambridge, Mass.; =young male; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 165, 1930).

Chaemepelia rufipennis rufipennis Hallinan, Auk, 41, p. 310, 1924—Gatún, Panama (nest and eggs).

Columbigallina talpacoti rufipennis Peters, Bds. World, 3, p. 108, 1937 (range).

Range.—Southeastern Mexico, from southern Vera Cruz southwards through Guatemala, British Honduras, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama to northern and eastern Colombia, Venezuela (south to the Orinoco-Caura basin), and the islands of Margarita, Trinidad, and Tobago.¹

Field Museum Collection.—74: Mexico (Achtal, Vera Cruz, 3; Yucatan, 1); British Honduras (Middlesex, 1); Guatemala (Tiquisate, Escuintla, 1; San José, Escuintla, 1; Los Amates, Izabal, 2); El Salvador (San Salvador, 1; Sitio del Niño, 2; Laguna Olomega, San Miguel, 3); Nicaragua (San Gerónimo, Chinandega, 3; San Emilio, Lake Nicaragua, 1); Costa Rica (Las Cañas, Guanacaste, 1; Buenos Aires, 2; El Pózo, Río Térraba, 2); Panama (Frances, Chiriquí, 1; Colón, 3); Colombia ("Bogotá," 4; 10 miles north of Cucuta, Santander, 1); Venezuela (Maracay, Aragua, 6; Lake Valencia, 1; Caracas, 8; Cocollar, Sucre, 3; Tachira, Colon, 5; Encontrados, 8; Orope, Zulía, 2; Río Aurare, Zulía, 2); West Indies (Tobago, 6).

Conover Collection.—43: Guatemala (Tiquisate, Escuintla, 1; Bobos, Izabal, 2); Honduras (Comayaguela, Tegucigalpa, 3; Caliche, La Paz, 2); Costa Rica (Miravalles, Guanacaste, 1; Puerto Jiménez, Puntarenas, 3; Las Cañas, West Slope, 7; Buenos Aires, 2; Matina, Limón, 1); Panama (Permé, Darien, 4; Obaldia, Darien, 4); Venezuela (Río Cogollo, Périja, 5; Río Chamá, Mérida, 7; Río Guachí, Zulía, 1).

****Columbigallina talpacoti eluta* Bangs.¹ VINACEOUS
TALPACOTI DOVE.**

¹ The range of this form certainly does not extend into the Guianas. Penard, mainly on Schlegel's authority, includes it among the birds of Surinam, but all the specimens sent by him to the Tring Museum prove to be *C. t. talpacoti*. Beebe's record from British Guiana, repeated by Chubb, is doubtless due to misidentification, since all the numerous examples we have seen from this colony are *talpacoti*.

¹ *Columbigallina talpacoti eluta* Bangs, if maintained, must be restricted to western Mexico, as has been explained by Ridgway. Its southward extension

Columbigallina rufipennis eluta Bangs, Auk, 18, p. 358, 1901—Escuinapa, Sinaloa, Mexico (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 165, 1930); Miller, Bull. Amer. Mus. N. H., 21, p. 343, 1905—Escuinapa, Sinaloa; Griscom, Bull. Mus. Comp. Zool., 75, p. 372, 1934—Coyucá, Guerrero.

Chamaepelia rufipennis (not of Bonaparte) Salvadori, Cat. Bds. Brit. Mus., 21, p. 487, 1893—part, spec. p-y, Santiago (Tepic), Tierra Colorada and Acapulco (Guerrero), (?)Putla (Oaxaca), and (?)Tonalá (Chiapas); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 253, 1902—part, western Mexico, in states of Sinaloa, Tepic, Guerrero, (?)Oaxaca, and (?)Chiapas.

Chaemepelia rufipennis eluta Todd, Ann. Carnegie Mus., 8, p. 590, 1913—part, western Mexico from Sinaloa to Guerrero, (?)Oaxaca, and (?)Chiapas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 429, 1916—western Mexico (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 8, 1927—San Blas, Nayarit.

Columbigallina talpacoti eluta Peters, Bds. World, 3, p. 107, 1937 (range).

Range.—Western Mexico, in states of Sinaloa (Escuinapa, Los Robles, Los Latos), Nayarit (San Blas, Santiago), Colima, Michoacan (Apatzingan), Guerrero (Acapulco, Tierra Colorada, Engido Nuevo, Coyucá), and possibly Oaxaca (Putla) and Chiapas (Tonalá).

Conover Collection.—1: Mexico (Apatzingan, Michoacan, 1).

Genus COLUMBINA Spix

Columbina Spix, Av. Spec. Nov. Bras., 2, p. 57, 1825—type, by subs. desig. (Gray, List Gen. Bds., 2nd ed., p. 75, 1841), *Columbina strepitans* Spix.

Columbula Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 22, Jan., 1855—new name for *Columbina* Spix; idem, Consp. Gen. Av., 2, sig. 10, "Dec. 5, 1854," p. 80, "April 15, 1855" [=1857].

**Columbina picui picui* (Temminck). GREATER PICUI DOVE.

Columba picui Temminck, Hist. Nat. Fig. Gall., 1, pp. 435, 498, 1813—based on "Paloma picui" Azara, No. 324, Paraguay; Knip and Prévost, Les Pigeons, 2, p. 71, pl. 39, ca. 1840—no locality (coll. d'Orbigny); Jaffuel and Pirion, Rev. Chil. Hist. Nat., 31, p. 111, 1927—Marga-Marga, Valparaíso, Chile.

Columbina strepitans (not of Spix) Gould, in Darwin, Zool. Beagle, 3, Birds, p. 116, 1841—Maldonado, banks of the La Plata, and Rio Negro, Patagonia; Fraser, Proc. Zool. Soc. Lond., 11, p. 115, 1843—Valley of Aconcagua, Chile; Yarrell, l.c., 15, p. 53, 1847—Chile (egg descr.); Hartlaub, Naumannia, 3, p. 221, 1853—Chile; Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 191, 1855—mountains of Chile; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 109, 1865—Chile (egg descr.).

beyond Guerrero remains to be ascertained by the study of adequate series from Pacific Oaxaca and Chiapas, whence no material is accessible.

Columbula strepitans Sclater, Proc. Zool. Soc. Lond., 1867, pp. 330, 339—Chile (ex Pelzeln).

Columbina picui Hartlaub, Syst. Ind. Azara, p. 21, 1847—Paraguay (ex Azara); Des Murs, in Gay, Hist. Ffs. Pol. Chile, Zool., 1, p. 377, 1847—central provinces of Chile; Germain, Proc. Bost. Soc. N. H., 7, p. 312, 1860—Santiago, Chile (nesting habits); Philippi, Anal. Univ. Chile, 31, p. 268, 1868—central provinces of Chile; Waugh and Lataste, Act. Soc. Scient. Chili, 4, p. lxxxvii, 1894—Peñaflor, Santiago, Chile; Marelli, El Hornero, 1, p. 76, 1918—Curuzú Cuatíá, Corrientes; Sanzin, l.c., p. 148, 1918—Mendoza; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Montevideo, Canelones, Minas, Maldonado); Renard, l.c., 2, p. 58, 1920—Cañuelas, Buenos Aires; Daguerre, l.c., 2, p. 260, 1922—Rosas, Buenos Aires; Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., p. 81, 1923—La Rioja; Pereyra, l.c., p. 161, 1923—Zelaya, Buenos Aires; Housse, Rev. Chil. Hist. Nat., 29, p. 149, 1925—San Bernardo, Santiago, Chile; Wilson, El Hornero, 3, p. 351, 1926—Venado Tuerto, Santa Fé; Wetmore, Bull. U. S. Nat. Mus., 133, p. 178, 1926—Chaco, Buenos Aires, Pampa, Mendoza (Tunuyán), Uruguay (Rio Negro, etc.), and Paraguay; Friedmann, Bull. Mus. Comp. Zool., 68, p. 171, 1927—Santa Elena, Entre Ríos (habits); Castellanos, El Hornero, 4, p. 371, 1931—Valle de los Reartes, Córdoba.

Chamaepelia cyanostigma "Reichenbach" Bibra, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 5, p. 130, 1853—near Casa Blanca, Valparaiso, Chile (nomen nudum); Philippi, Anal. Univ. Chile, 31, p. 325, 1868 (crit.).

Columbula picui Burmeister, Syst. Uebers. Th. Bras., 3, p. 300, 1856—southern Brazil, Paraguay, and Montevideo; idem, Journ. Orn., 8, p. 259, 1860—Argentina; idem, Reise La Plata St., 2, p. 496, 1861—Mendoza, Paraná, and Tucumán; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 143—Conchitas, Buenos Aires; Sternberg, Journ. Orn., 17, p. 273, 1869—Buenos Aires (nesting habits); Pelzeln, Orn. Bras., 3, p. 276, 1870—São Paulo (Porto do Piahy) and Matto Grosso (Cuyabá, Villa Maria, Caiçara); Doering, Period. Zool. Arg., 1, p. 255, 1874—Rio Guayquiraro, Corrientes; Durnford, Ibis, 1876, p. 163; 1877, p. 193—Buenos Aires; Reed, Anal. Univ. Chile, 49, p. 565, 1877—Colchagua, Chile; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 640—Sorata, Bolivia; Gibson, Ibis, 1880, p. 7—Cape San Antonio, Buenos Aires; Durnford, l.c., p. 418—Tucumán; White, Proc. Zool. Soc. Lond., 1882, p. 626—Flores, Buenos Aires; Holmberg, Act. Acad. Nac. Cienc. Córdoba, 5, p. 85, 1884—Tandil, Buenos Aires; Barrows, Auk, 1, p. 275, 1884—Concepción del Uruguay, Entre Ríos; Gibson, Ibis, 1885, p. 282—Paysandú, Uruguay; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 176, 1885—Taquara, Rio Grande do Sul; Withington, Ibis, 1888, p. 465—Lomas de Zamora, Buenos Aires; Sclater and Hudson, Arg. Orn., 2, p. 143, 1889—Argentina (habits); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 403, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 123, 1891—Córdoba; Holland, Ibis, 1891, p. 16; 1892, p. 209—Est. Espartillar, Buenos Aires; Kerr, Ibis, 1892, p. 147—Rio Pilcomayo; Salvadori, Cat. Bds. Brit. Mus., 21, p. 470, 1893—part, spec. a-s, Paraguay, Argentina (Buenos Aires, Rio Negro, Mendoza), Bolivia (Sorata), Chile (Santiago), and Brazil (Chapada, Cuyabá, Villa

- Maria); Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso; Aplin, Ibis, 1894, p. 202—Montevideo; Koslowsky, Rev. Mus. La Plata, 6, p. 286, 1895—Chilecito, La Rioja; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 23, 1895—Puerto Pagani, Rio Apa, Paraguay; idem, l.c., 12, No. 292, p. 32, 1897—Bolivian Chaco (San Francisco and Caiza, Tarija) and Jujuy (San Lorenzo); Reed, Anal. Univ. Chile, 93, p. 209, 1896—valleys of Chilean Cordilleras; Schalow, Zool. Jahrb., Suppl., 4, p. 669, 1898—Santiago, Chile; Ihering, Anuario Est. Rio Grande do Sul, 16, p. 146, 1899—Mundo Novo, Rio Grande, and Pedras Brancas, Rio Grande do Sul; Kerr, Ibis, 1901, p. 234—Chaco Paraguay; Ihering, Rev. Mus. Paul., 5, "1901," p. 284, 1902—Iguapé and Porto do Piahy, São Paulo; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902—Tucumán; Lönnberg, Ibis, 1903, pp. 452, 459—San Luis and Colonia Grévaux, Tarija, Bolivia; Baer, Ornith., 12, p. 233, 1904—Tapia, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Orán, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 21, 1907—Iguapé, São Paulo, and La Plata, Argentina; Hellmayr, Nov. Zool., 14, p. 408, 1907—Humaytá, Rio Madeira, Brazil; Hartert and Venturi, l.c., 16, p. 262, 1909—Buenos Aires (Flores, Barracas al Sud) and Tucumán (Tapia); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 192, 1910 (range in Argentina); Chubb, Ibis, 1910, p. 61—Sapucay, Paraguay; Grant, Ibis, 1911, p. 460—Matto Grosso (Boca de Homiguera near Albuquerque) and Buenos Aires (Ajó); Bertoni, Faun. Parag., p. 36, 1914—Alto Paraná, Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 64, 1914 (no specimens); Hussey, Auk, 33, p. 386, 1916—La Plata; Ménégau, Rev. Franç. d'Orn., 1917, p. 25—São Luiz de Cáceres, Matto Grosso; Costes, Rev. Chil. Hist. Nat., 21, p. 166, 1919—Valle de Marga-Marga, Valparaíso, Chile; Chubb, Ibis, 1919, p. 39—Bolivia (Chulumani, La Paz, Tapacari, Cochabamba, El Cabrada, Chuquisaca); Gibson, Ibis, 1920, p. 35—Cape San Antonio, Buenos Aires (habits); Bullock, Rev. Chil. Hist. Nat., 33, p. 192, 1929—Angol, Malleco, Chile.
- Peristera picui* Schlegel, Mus. Pays-Bas, Columbae, p. 137, 1873—Santiago, Chile.
- Columbula picui picui* Hellmayr, Nov. Zool., 17, p. 416, 1910—Humaytá, Rio Madeira, Brazil; Barros, Rev. Chil. Hist. Nat., 23, p. 16, 1919—Nihue, Curicó, Chile.
- Columbina picui picui* Dabbene, El Hornero, 1, p. 31, 1917—Isla Martín García, Buenos Aires; Barros, Rev. Chil. Hist. Nat., 25, p. 171, 1921—Precordillera of Aconcagua, Chile; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 599, 1924—Prov. Buenos Aires; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 87, 1930—Formosa (San José, Tapiololé), Santa Fé (Est. La Germania), and Bolivia (Villa Montes, Tarija; San José, Santa Cruz); Naumburg, Bull. Amer. Mus. N. H., 60, p. 402, 1930—Matto Grosso; Pinto, Rev. Mus. Paul., 17, (2), p. 711, 1932—Aquidauana, Matto Grosso; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 347, 1932—Olmué (Valparaíso), Palmilla, La Cruz (Valparaíso), and Lampa, Santiago, Chile (range); Marelli, El Hornero, 5, p. 195, 1933—Est. Sierra de la Ventana, Buenos Aires; Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 377, 1934—Descalvados, Matto Grosso; Laubmann, Verh. Orn. Ges. Bay., 20, p. 284, 1934—Est. La Geraldina, Santa Fé; Barros,

Rev. Chil. Hist. Nat., 38, p. 140, 1934—Cordilleras of Peuco, O'Higgins, Chile; Peters, Bds. World, 3, p. 104, 1937 (range).

Range.—Southern Brazil, from Rio Grande do Sul north to São Paulo (Iguapé, Porto do Piahy), Matto Grosso, and the upper Rio Madeira (Humaytá);¹ eastern Bolivia; Paraguay; Uruguay; northern Argentina, south to the Rio Negro; central Chile (Aconcagua to Malleco).²

Field Museum Collection.—6: Uruguay (Maldonado, Maldonado, 1); Brazil (Descalvados, Rio Paraguay, Matto Grosso, 1); Bolivia (Parotani, Cochabamba, 1); Chile (Palmilla la Cruz, Valparaiso, 1; Santiago Market, Santiago, 1; Lampa, Santiago, 1).

Conover Collection.—28: Paraguay (Villa Rica, 6; Horqueta, 4); Bolivia (Arani, Cochabamba, 2; Buenavista, Santa Cruz, 1; Rio Surutú, Santa Cruz, 2); Argentina (Tapia, Tucumán, 1; Concepción, Tucumán, 5; Torrecita, Buenos Aires, 1; Tunuyán, Mendoza, 4); Chile (Olmué, Valparaiso, 2).

****Columbina picui strepitans* Spix.³ LESSER PICUI DOVE.**

Columbina strepitans Spix, Av. Spec. Nov. Bras., 2, p. 57, pl. 75, fig. 1, 1825—"in campis Piahy," Brazil (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 696, 1906); Chubb, Ibis, 1910, p. 62—Ceará (crit.).

Columba strepitans Wagler, Syst. Av., 1, fol. 17, spec. 109, 1827—Brazil, "versus flumen Amazonum," errore (descr. spec. typ.).

Columbula strepitans Burmeister, Syst. Uebers. Th. Bras., 3, p. 299, 1856—northern Brazil (ex Spix).

Columbula picui (not *Columba picui* Temminck) Salvadori, Cat. Bds. Brit. Mus., 21, p. 470, 1893—part, spec. t, Ceará; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará.

Columbina (Columbula) strepitans Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—Bahia (Joazeiro, Solidade) and Piahy (Pedrinha, Lagõa do Parnaguá).

Columbina strepitans=*Columbula picui* [sic] Reiser, l.c., 76, p. 191, 1924—Bahia, Piahy, and Maranhão (eggs).

¹ Only a single female from this locality being available, the final determination as to race requires the examination of an adequate series.

² No racial variation is observable between birds from Chile, Bolivia, Argentina, and Paraguay. Specimens from southern Brazil (Matto Grosso and São Paulo) agree well with topotypes.

Additional material examined.—Chile: Santiago, 2; unspecified, 3.—Bolivia: Chulumani, La Paz, 1.—Brazil: Porto do Piahy, São Paulo, 1; Cuyabá, Matto Grosso, 4; Caiçara, Matto Grosso, 1.—Paraguay: Villa Concepción, 2.—Argentina: Tapia, Tucumán, 2.

³ *Columbina picui strepitans* Spix: Similar to the nominate race, but somewhat smaller and coloration paler; the back and inner secondaries light grayish brown instead of drab; the anterior under parts also lighter, tillieul-buff to pale

Columbina picui strepitans Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 466, 1929—Piauhy (Ibiapaba, Arára) and Ceará (Varzea Formosa, Quixada) (crit.); Peters, Bds. World, 3, p. 104, 1937 (range).

Range.—Northeastern Brazil, from Bahia north to Ceará, Piauhy, and Maranhão.

Field Museum Collection.—3: Brazil (Varzea Formosa, Ceará, 1; Quixada, Ceará, 1; Arára, Piauhy, 1).

Conover Collection.—6: Brazil (Ibiapaba, Piauhy, 5; Arára, Piauhy, 1).

Genus EUPELIA Todd¹

Eupelia Todd, Ann. Carnegie Mus., 8, p. 512, 1913—type, by orig. desig., *Columba cruziana* Knip and Prévost.

**Eupelia cruziana* (Knip and Prévost). D'ORBIGNY'S GROUND DOVE.

Columba cruziana (d'Orbigny MS.) Knip and Prévost, Les Pigeons, 2, p. 89, pl. 48, ca. 1842—"Bolivia, aux environs de Santa Cruz," errore (the cotypes examined in the Paris Museum were obtained by d'Orbigny in "Peru"—coast of Tacna, Chile).

Columba gracilis Tschudi, Arch. Naturg., 9, (1), p. 385, end of 1843—"in regionibus occidentalibus" [of Peru] (type in Neuchâtel Museum); idem, l.c., 10, (1), p. 305, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 277, pl. 30, 1846—west slope of Coast Cordillera of Peru; Philippi, Orn., 4, p. 159, 1888—Canchones, Tarapacá, Chile.

Columbula cruziana Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 23, 1855 (crit.); idem, Cons. Gen. Av., 2, p. 80, 1857—Peru (diag.); Sclater, Proc. Zool. Soc. Lond., 26, p. 461, 1858—Cuenca, Ecuador; idem, l.c., 28, p. 289, 1860—Babahoyo, Ecuador; Taczanowski, l.c., 1874, p. 555—Lima (Chorillos, Lima) and Ayacucho (Huanta); idem, l.c., 1877, p. 754—Tumbez, Peru (egg descr.); idem, l.c., 1879, p. 243—Tambillo, Peru; idem, l.c., 1880, p. 213—Callacate, Peru (eggs only).

Chamaepelia cruziana Sclater, Proc. Zool. Soc. Lond., 1866, p. 100—vicinity of Lima, Peru; Sclater and Salvin, l.c., 1867, p. 989—Arequipa, Peru; iidem, l.c., 1868, p. 176—Tambo Valley, Arequipa; iidem, l.c., 1868, p. 570—western Peru; iidem, l.c., 1879, p. 640—"Santa Cruz, Bolivia" (errore); Berlepsch and Taczanowski, l.c., 1883, p. 575—Chimbo and Yaguachi, Ecuador; Sclater, l.c., 1886, p. 402—Pica, Tarapacá, Chile; Taczanowski, Orn. Pér., 3, p. 248, 1886—Peru (Lima, Chorillos, Huanta, Tumbez,

vinaceous-fawn rather than pale pinkish buff; the abdominal zone more extensively white. Wing, 85–89; tail, 71–76; bill, 11–12.

Additional material examined.—Piauhy: Pedrinha, Lagõa do Parnaguá, 1; unspecified, 1 (the type).—Bahia: Joazeiro, 1; Solidade, 1; unspecified, 1.

¹ Genus *Eupelia* Todd: Very similar, in style of coloration, to *Columbina*, but bill and feet stouter and tail proportionately shorter and much less rounded.

Though until recently referred to *Chamaepelia*, d'Orbigny's Ground Dove differs from the members of that genus in various details, as has been pointed out by Mr. Todd, and appears to be more nearly related to *Columbina* Spix.

Tambillo, Cutervo, Callacate); Sclater, Proc. Zool. Soc. Lond., 1891, p. 136—Pica, Tarapacá, Chile; Salvadori, Cat. Bds. Brit. Mus., 21, p. 483, 1893—Ecuador (Guayaquil, Puná Island), "Bolivia," Peru (Arequipa, Lima), and Chile (Pica, Tarapacá); Reed, Anal. Univ. Chile, 93, p. 209, 1896—Tarapacá; Lane, Ibis, 1897, p. 299—Pica, Tarapacá, Chile (nesting habits); Salvin, Nov. Zool., 2, p. 21, 1895—Viña, Huamachuco, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 35, 1900—Cuenca and Puntilla de Santa Elena, Ecuador.

Peristera cruziana Schlegel, Mus. Pays-Bas, Columbae, p. 137, 1873—"Bolivia"—Tacna, northern Chile (descr.).

Columbigallina cruziana Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 394—Lima and Ica, Peru; idem, Ornith., 13, p. 72, 1906—Pauza, Ayacucho; Peters, Bds. World, 3, p. 109, 1937 (range).

Eupelia cruziana Todd, Ann. Carnegie Mus., 8, p. 512, 1913; Bangs and Noble, Auk, 35, p. 447, 1918—Huancabamba, Piura, Peru; Chubb, Ibis, 1919, p. 40—Ecuador (Puná Island, Cuenca, Loja) and Peru (Catacoas and Piura, Piura; Eten, Lambayeque; Trujillo, Libertad; Caraz, Ancachs); Chapman, Bull. Amer. Mus. N. H., 55, p. 166, 1926—Ecuador (Esmeraldas, coast of Manaví, Bahía de Carques, Manta, Plata Island, Santa Elena, Guayaquil, Bucay, Puná Island, Santa Rosa, Casanga, Rio Pindo, Lunamá, Guainche, Sabanilla); Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 349, 1932—Pica, Tarapacá, Chile (crit.); Philippi, El Hornero, 6, p. 236, 1936—Asapa, Tacna, Chile.

Range.—Tropical zone of the Pacific coast of Ecuador, Peru, and extreme northern Chile (provinces of Tacna and Tarapacá), extending east by way of Huancabamba Pass into the Marañón Valley (Tambillo, Cutervo, Callacate, Viña, Chachapoyas).¹

Field Museum Collection.—8: Peru (Cajamarca, Cajamarca, 1; Chachapoyas, Amazonas, 1; Menocucho, Libertad, 2; Pacasmayo, Libertad, 1; Chimbote, Ancachs, 1); Chile (Pica, Tarapacá, 2).

Conover Collection.—4: Ecuador (Malacatos, Loja, 1); Peru (Lima, 2; Huancabamba, 1).

Genus LEPTOPHAPS Reichenow²

Leptophaps Reichenow, Journ. Orn., 61, p. 401, April, 1913—type, by orig. desig., *Columba ayмара* Knip and Prévost.

¹ Birds from western Ecuador agree well with five typical specimens from northern Chile (Pica, Tarapacá; Tacna), but average slightly smaller. This ground dove is characteristic of the arid districts of the Tropical zone of the Pacific coast. It is particularly common in the lowlands, but there are also various records from higher altitudes (Cuenca, Ecuador; Huanta and Pauza, Ayacucho, Peru), and it has reached, by way of Huancabamba Pass, the Marañón Valley. The species has never been obtained in Bolivia. The locality, "Santa Cruz," is a mistake. The original specimens were secured by d'Orbigny in 1831 in the province of Tacna, at that time part of Peru. Twenty-five additional specimens examined.

² Genus *Leptophaps* Reichenow: Closely allied to *Metriopelia*, but differs in the tail being shorter in proportion to the wing, the upper tail coverts longer in proportion to the tail, and in having metallic spots on the wing coverts and scapulars.

***Leptophaps aymara** (Knip and Prévost). AYMARA DOVE.

Columba aymara (d'Orbigny MS.) Knip and Prévost, Les Pigeons, 2, p. 62, pl. 32, ca. 1840—"Tacora" [probably *Totora*, Oruro], Bolivia (type in Paris Museum examined).

Metriopelia aymara Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, p. 23, 1855—Bolivia; idem, Consp. Gen. Av., 2, p. 76, 1857—Bolivia (diag.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 989—Salinas, Arequipa, Peru; idem, l.c., 1868, p. 570—Salinas; Allen, Bull. Mus. Comp. Zool., 3, p. 355, 1876—Vilquechico, Lake Titicaca, Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 630—"Tacora," Bolivia (ex Knip and Prévost); Sclater, l.c., 1886, p. 402—Huasco and Sitani, Tarapacá, Chile; Taczanowski, Orn. Pér., 3, p. 240, 1886—"Cochabamba," Bolivia; Sclater and Hudson, Arg. Orn., 2, p. 142, 1889—Los Paramillos, Mendoza; Salvadori, Cat. Bds. Brit. Mus., 21, p. 499, 1893—Bolivia, Peru ("Tinta," Salinas), Chile ("Iquique," Huasco, Tarapacá), and "Pampas Argentinas"; Koslowsky, Rev. Mus. La Plata, 6, p. 287, 1895—Cordilleras north and west of Chilecito, La Rioja; Reed, Anal. Univ. Chile, 93, p. 208, 1896—Tarapacá, Chile; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 216, 1902—"Taft," Tucumán; Lönnberg, Ibis, 1903, p. 446—Moreno, Jujuy; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Santa Catalina, Jujuy; Baer, Ornith., 12, p. 233, 1904—Lara, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Cumbres Calchaqués, Tucumán; Berlepsch and Stolzmann, Ornith., 13, p. 130, 1906—Puno, Peru; Ménégau, Bull. Soc. Philom. Paris, (10), 1, p. 216, 1909—Pulacayo and Panya Arenal, Oruro, Bolivia; Hartert and Venturi, Nov. Zool., 16, p. 262, 1909—Tucumán (Laguna de Pavayau and Lara); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 193, 1910—Cumbre de Calchaqués, Tucumán, and Santa Catalina, Jujuy; Giacomelli, El Hornero, 3, p. 81, 1923—Chilecito, La Rioja; Budin, l.c., 4, p. 403, 1931—Sierras de Zenta, Jujuy; Peters, Bds. World, 3, p. 103, 1937 (range).

Columbina aurisquamata Leybold, Leopoldina, 8, No. 7, p. 53 (after March 26), 1873—Los Paramillos, near Uspallata Pass, Prov. Mendoza, Argentina (cotype in British Museum examined); idem, Excursion Pamp. Argent., p. 38, May, 1873—between Uspallata and Villavicencio, Mendoza (full descr.); Philippi, Anal. Univ. Chile, 31, p. 268, 1868—Uspallata Pass, Mendoza.

(?) *Zenaida aurisquamata* Philippi, Ornith., 4, p. 159, 1888—Brea, Atacama, Chile.

Leptophaps aymara Reichenow, Die Vögel, 1, p. 338, 1913—Peru to northern Bolivia and Argentina; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 346, 1932—twenty miles east of San Pedro, Antofagasta, Chile (crit.); Philippi, El Hornero, 6, p. 235, 1936—Chacalluta, Tacna, Chile.

Leptophaps aymara aymara Chubb, Ibis, 1919, p. 43—Peru (Sumbay, Arequipa) and Bolivia (Catamarca, Cochabamba; Oruro and Challapata, Oruro; Potosí, Livichuco, and Uyuni, Potosí).

Leptophaps aymara aurisquamata Chubb, Ibis, 1919, p. 44—"Pampas argentinas"—Prov. Mendoza (crit.); Dinelli, El Hornero, 4, p. 277, 1929—cerros of Tucumán.

Range.—Puna zone of extreme southern Peru (Salinas and Sumbay, Arequipa; Puno and Vilquechico, Titicaca basin), extreme northern Chile (prov. of Tacna, Tarapacá, and Antofagasta),¹ western Bolivia (depts. of Oruro, Cochabamba, and Potosí), and western Argentina (from Jujuy to La Rioja and Mendoza).²

Field Museum Collection.—2: Chile (20 miles east of San Pedro, Antofagasta, 2).

Conover Collection.—6: Peru (Puno, Puno, 2; Silustani, Puno, 1; Sorapa, Puno, 1); Bolivia (Oruro, Oruro, 1); Argentina (Laguna Blanca, Catamarca, 1).

Genus UROPELIA Bonaparte

*Uropelia*³ Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 1, p. 24, for Jan. 7, 1855—type, by monotypy, *Columbina campestris* Spix.

Uropeleia G. R. Gray, Cat. Gen. Subgen. Bds., p. 100, after April 5, 1855—type, by orig. desig., *Columbina campestris* Spix.

**Uropelia campestris* (Spix). MAUVE-SPOTTED GROUND DOVE.

Columbina campestris Spix, Av. Spec. Nov. Bras., 2, p. 57, pl. 75, fig. 2, 1825⁴—"in campis Bahiae" (cotypes in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 697, 1906).

Columba venusta Temminck, Nouv. Rec. Pl. Col., livr. 57, pl. 341, fig. 1, April 23, 1825—"Brésil, dans la province de Goyas" (type, collected by A. de Saint-Hilaire, in Paris Museum); Knip and Prévost, Les Pigeons, 2, p. 51, pl. 26, ca. 1840—Brazil (fig. of type).

Columba turturina Desmarest, Dict. Sci. Nat., 40, p. 362, 1826—based on Temminck, Nouv. Rec. Pl. Col., pl. 341, fig. 1.

Columba campestris Wagler, Syst. Av., 1, fol. 17, sp. 110, 1827—Brazil (descr. spec. typ.).

¹ The record from Brea, Atacama, is open to doubt, the specimens having been lost.

² Birds from Peru (Puno), northern Chile, and Bolivia agree well together, nor are we able to substantiate the distinctness of the Argentine race (*aurisquamata*) revived by Chubb. Specimens from Jujuy, Tucumán (Lara), and the mountains west of Mendoza are by no means smaller, but perhaps on average slightly paler, especially below, this divergency being, however, far from constant.

Additional material examined.—Peru: Puno, 2; Salinas, Arequipa, 1.—Chile: Cordillera of Tarapacá, 4.—Bolivia: Esperanza, Oruro, 2; Oruro, 2; "Tacora," 1 (the type).—Argentina: Santa Catalina, Jujuy, 1; Lara, Tucumán, 5; near Uspallata Pass, Mendoza, 3.

³ The name *Uropelia* is credited by certain authors to Bonaparte (Consp. Gen. Av., 2, p. 85, "1854"), but it is extremely doubtful whether the second volume of this work can be considered as actually published prior to 1857 (cf. Zimmer, Field Mus. Nat. Hist., Zool. Ser., 16, p. 69, 1926).

⁴ As nothing is known about the precise date of publication of Spix's work, there is no means of telling whether *C. campestris* really has priority over *C. venusta* Temminck.

Uropelia campestris Bonaparte, Consp. Gen. Av., 2, p. 85, "1854" [=1857]—Minas Geraes, Brazil; idem, Compt. Rend. Acad. Sci. Paris, 43, p. 946, 1856—Bolivia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 489, 1893—Uru [=Uruhú], Chapada, and Bolivia; (?)Goeldi, Ibis, 1897, p. 164—Lagõa do Amapá, northern Pará; Ihering, Cat. Faun. Braz., 1, p. 22, 1907—Matto Grosso (range); Hellmayr, Nov. Zool., 15, p. 93, 1908—Rio Thesouras and Goyáz, Goyáz; Snethlage, Bol. Mus. Goeldi, 8, p. 66, 1914—Marajó Island (Pindobal, Pacoval, Rio Arary, São Natal); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 469, 1929—Maranhão (Codó, Cocos) and Goyáz (Philadelphia); Naumburg, Bull. Amer. Mus. N. H., 60, p. 69, 1930—Tapirapoan, Matto Grosso; Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 377, 1934—Descalvados, Matto Grosso.

Columbula campestris G. R. Gray, List Spec. Bds. Brit. Mus., 4, p. 46, 1856—Bolivia; Burmeister, Syst. Uebers. Th. Bras., 3, p. 299, 1856—Bahia (ex Spix); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 54—Paracatú, Minas Geraes; Pelzeln, Orn. Bras., 3, p. 276, 1870—Goyáz (Uru [=Uruhú], Balcalhão, Estrella) and Matto Grosso (Cuyabá); Slater and Salvin, Proc. Zool. Soc. Lond., 1878, p. 141—"Arare" [=Arary], Marajó, Brazil; Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Cachoeira, Matto Grosso.

Peristera campestris Schlegel, Mus. Pays-Bas, Columbae, p. 138, 1873—Brazil.

Uropeleia campestris Reichenbach, Vollst. Naturg. Tauben, p. 18, 1862—Bahia and Minas Geraes.

Columbina (Uropelia) campestris Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 87, 1910—Piauhy (Lagõa do Saco, Santa Philomena); idem, l.c., p. 192, 1924—Piauhy.

Uropelia campestris figginsii Oberholser, Proc. Colo. Mus. N. H., 10, No. 5, p. 24, 1931—Descalvados, Matto Grosso (type in Colorado Museum of Natural History, Denver); Peters, Bds. World, 3, p. 104, 1937 (range).

Uropelia campestris campestris Pinto, Rev. Mus. Paul., 20, p. 39, 1936—Fazenda Formiga, Rio das Almas, Goyáz; Peters, Bds. World, 3, p. 104, 1937 (range).

Range.—Campos of Brazil, from the island of Marajó,¹ Maranhão, Piauhy, and Ceará south to western Minas Geraes (Paracatú), Goyáz, and Matto Grosso; and the adjoining parts of eastern Bolivia (Dept. Santa Cruz).²

¹ Goeldi's record from the Lagõa do Amapá, northern Pará, requires confirmation. No specimens from this locality exist in the Museu Goeldi at Pará.

² Subdivision of this species is impracticable. The characters given by Oberholser, who had very scanty material, for the Matto Grosso birds (*figginsii*) prove to be non-existent in the light of adequate series from different parts of the range. The only noticeable, slight average differences are the rather lighter, pinkish ecru drab rather than light cinnamon-drab color of the anterior under parts and the more whitish throat in birds from interior Brazil, but the divergency is completely bridged by individual variation. If two races be discriminated, the interior form is entitled to Temminck's term *venusta* based on specimens from Goyáz, which

Field Museum Collection.—9: Brazil (Codó, Cocos, Maranhão, 1; Philadelphia, Goyáz, 3; São Marcello, Rio Preto, Bahia, 5).

Conover Collection.—9: Brazil (Marajó-Campo, Pará, 4; Codó, Cocos, Maranhão, 2; Philadelphia, Goyáz, 3).

Genus *OXYPELIA*¹ Salvadori

Oxytelia Salvadori, Cat. Bds. Brit. Mus., 21, p. 490, 1893—type, by orig. desig., *Peristera cyanopsis* Pelzeln.

Oxytelia cyanopsis (Pelzeln).² BLUE-EYED DOVE.

Peristera cyanopsis Pelzeln, Orn. Bras., 3, pp. 277, 336, 1870—Cuyabá, Matto Grosso, Brazil (cotypes in Vienna Museum examined).

Oxytelia cyanopsis Salvadori, Cat. Bds. Brit. Mus., 21, p. 490, pl. 10, fig. 1, 1893—Cuyabá; Ihering, Cat. Faun. Braz., 1, p. 23, 1907—Itapura, São Paulo; Naumburg, Bull. Amer. Mus. N. H., 60, p. 69, 1930—Cuyabá, Matto Grosso, and Itapura, São Paulo; Peters, Bds. World, 3, p. 109, 1937 (range).

Range.—Interior of Brazil, from Matto Grosso (Cuyabá) to northern São Paulo (Itapura, near the confluence of the Tieté and Paraná rivers).

Genus *CLARAVIS* Oberholser

Peristera (not of Rafinesque, 1815) Swainson, Zool. Journ., 3, p. 360, Dec., 1827—type, by orig. desig., *Columba cinerea* Temminck=*Peristera pretiosa* Ferrari-Perez.

Claravis Oberholser, Proc. Acad. Nat. Sci. Phila., 51, p. 203, 1899—new name for *Peristera* Swainson, preoccupied.

are absolutely identical with those from Matto Grosso. Six skins from the island of Marajó do not markedly differ from others taken in Bahia and Piahy.

Additional material examined.—Marajó: Arary, 2.—Ceará, 1.—Piahy: Lagôa do Saco, 1; Santa Philomena, 3.—Bahia, 3.—Goyáz: Bacalhão, 4; Uruhú, 3.—Matto Grosso: Cuyabá, 1; Cambará, Xarayes swamp, 1.—Bolivia (unspecified), 1.

¹ In structural details *Oxytelia* is like *Claravis*, which it notably resembles in the abruptly attenuated tip of the outermost primary, but the tail is much more rounded and proportionately much shorter, being only little shorter than the wing (not longer, as stated by Salvadori, Cat. Bds. Brit. Mus., 21, p. 470, 1893). The rectrices, besides, are wider and less truncate. Proportions of wing and bill are about the same as in *Uropelia*, and there is also some analogy in style of coloration. However, *Oxytelia* may be immediately separated from that genus by the attenuated tip of the outermost primary, the much shorter, less graduated tail composed of much wider, apically broadly rounded rectrices, etc.

² *Oxytelia cyanopsis* (Pelzeln) is a very characteristic species of peculiar coloration, with rufous head, wing and upper tail coverts, and basally rufous tail, the lateral rectrices being apically edged with white. The sexes are nearly alike save for the paler coloration, especially underneath, of the female.

In addition to the five specimens obtained by Natterer at Cuyabá, there is only one other record of this excessively rare species from Itapura, São Paulo, whence the late E. Garbe procured an example for the Museu Paulista.

***Claravis pretiosa** (Ferrari-Perez). CINEREOUS DOVE.

Columba cinerea (not of Scopoli, 1786) Temminck, in Temminck and Knip, *Les Pigeons*, 1, Colombes, p. 126, pl. 58 (male), 1811—"au Brésil" (type in coll. of C. J. Temminck, now in Leiden Museum);¹ Temminck, *Hist. Nat. Fig. Gall.*, 1, pp. 299, 477, 1813—Brazil (descr. of male); idem, *Nouv. Rec. Pl. Col.*, livr. 44, pl. 266, 1824—Brazil (descr. of female); Wagler, *Syst. Av.*, 1, fol. 17, sp. 85, 1827—Brazil (descr.); Tschudi, *Arch. Naturg.*, 10, (1), p. 305, 1844—Peru; idem, *Unters. Faun. Peru.*, Orn., p. 44, 1845—Peru.

Peristera pretiosa Ferrari-Perez, *Proc. U. S. Nat. Mus.*, 9, p. 175, 1886—Jalapa, Vera Cruz (new name for *Columba cinerea* Temminck, preoccupied).

Peristera cinerea Swainson, *Zool. Journ.*, 3, p. 360, 1827; Gray, *List Spec. Bds. Brit. Mus.*, 4, p. 52, 1856—Cayenne, Brazil, and Rio Ucayali; Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 303, 1856—Nova Friburgo, Rio de Janeiro (range); Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 309, 1856—Córdoba, Vera Cruz; Bonaparte, *Consp. Gen. Av.*, 2, p. 75, 1857—Brazil (diag.); Moore, *Proc. Zool. Soc. Lond.*, 27, p. 61, 1859—Omoa, Honduras; Sclater, *l.c.*, p. 391, 1859—Playa Vicente, Oaxaca; Lawrence, *Ann. Lyc. Nat. Hist. N. Y.*, 7, p. 301, 1862—Lion Hill, Panama; Sclater, *Proc. Zool. Soc. Lond.*, 1864, p. 178—vicinity of Mexico City; idem and Salvin, *l.c.*, 1864, p. 370—Lion Hill, Panama; idem, *l.c.*, 1867, p. 753—Xeberos, Peru; Léotaud, *Ois. Trinidad*, p. 378, 1866—Trinidad; Lawrence, *Ann. Lyc. Nat. Hist. N. Y.*, 9, p. 138, 1868—Gulf of Nicoya, Costa Rica; Frantzzius, *Journ. Orn.*, 17, p. 371, 1869—Costa Rica; Sumichrast, *Mem. Bost. Soc. N. H.*, 1, p. 560, 1869—Vera Cruz; Salvin, *Proc. Zool. Soc. Lond.*, 1870, p. 217—Veraguas (Calovévora) and Panama (Mina de Chorchá, Bugaba); Reinhardt, *Vidensk. Medd. Naturhist. Foren.*, 1870, p. 57—Lagõa Santa, Minas Geraes; Pelzeln, *Orn. Bras.*, 3, p. 278, 1870—São Paulo (Rio de Jacarehy, Ypanemá, Irisanga) and Matto Grosso (Cidade de Matto Grosso); Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1873, p. 306—Peru (Xeberos, Chamicuros, Santa Cruz); Schlegel, *Mus. Pays-Bas, Columbae*, p. 138, 1873—Brazil, Colombia, Panama, and Costa Rica; Cabanis, *Journ. Orn.*, 22, p. 230, 1874—Cantagallo, Rio de Janeiro; Salvin, *Ibis*, 1874, p. 99—lowlands of Guatemala; Taczanowski, *Proc. Zool. Soc. Lond.*, 1877, p. 329—Lechugal, Rio Zurumilla, Peru; Sclater and Salvin, *l.c.*, 1879, p. 544—Remedios, Cauca, Colombia; Nutting, *Proc. U. S. Nat. Mus.*, 6, p. 408, 1883—Los Sábalos, Nicaragua; Berlepsch and Taczanowski, *Proc. Zool. Soc. Lond.*, 1883, p. 575—Chimbo, Ecuador; idem, *l.c.*, 1885, p. 111—Yaguachi, Ecuador; Taczanowski, *Orn. Pér.*, 3, p. 253, 1886—Peru (Xeberos, Chamicuros, Santa Cruz, Lechugal, Palmal); Zeledón, *Anal. Mus. Nac. Costa Rica*, 1, p. 127, 1887—Costa Rica (Las Trojas, Alajuela, San José, Naránjo de Cartago); Berlepsch, *Journ. Orn.*, 35, p. 34, 1887—Rio Pilcomayo, Paraguay; idem, *l.c.*, 37, p. 319, 1889—Tarapoto, Peru; Ridgway, *Proc. U. S. Nat. Mus.*, 10, p. 584, 1888—Truxillo, Honduras; Allen, *Bull. Amer. Mus. N. H.*, 2, p. 106, 1889—lower Beni River, Bolivia; Cherrie, *Auk*, 9, p. 329, 1892—San José, Costa Rica;

¹ The male from "Brésil, cab. Temminck" listed as No. 1 by Schlegel (*Mus. Pays-Bas, Columbae*, p. 138, 1873), though not indicated as such, is doubtless the type.

- Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso; Salvadori, Cat. Bds. Brit. Mus., 21, p. 491, 1893—Mexico (Tampico; Yucatan), Guatemala (Rio de la Pasión, Yzabal, Choctum, Retalhuleu), British Honduras (Belize, Orange Walk), Nicaragua (El Volcan, Chinandega), Costa Rica (La Barranca), Panama (Mina de Chorchá, Calovévora, Lion Hill), Colombia (Remedios), Venezuela, British Guiana (Quonga, Ourumee), Cayenne, Peru (Rio Ucayali), Ecuador (Balzar), and Brazil (Capim River, Bahia, Chapada); Richmond, Proc. U. S. Nat. Mus., 16, p. 523, 1893—Rio Escondido, Nicaragua; Underwood, Ibis, 1896, p. 447—Miravalles, Costa Rica; Hartert, Nov. Zool., 5, p. 504, 1898—Chimbo, Ecuador; Ihering, Rev. Mus. Paul., 3, p. 401, 1899—Piracicaba, São Paulo; idem, l.c., 4, p. 163, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 35, 1900—Rio Peripa and Vines, Ecuador; Salvadori, l.c., 15, No. 378, p. 14, 1900—Carandasinho, Matto Grosso; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 25, 1902—Mexico to Panama; Goodfellow, Ibis, 1902, p. 228—Santo Domingo, Ecuador.
- Peristera* sp. Sclater, Proc. Zool. Soc. Lond., 28, p. 298, 1860—Esmeraldas, Ecuador.
- Claravis pretiosa* Oberholser, Proc. Acad. Nat. Sci. Phila., 51, p. 203, 1899; Allen, Bull. Amer. Mus. N. H., 13, p. 128, 1900—Minca, Cacagualito, and Mamatoco, Colombia; Bangs, Proc. New Engl. Zool. Cl., 2, p. 15, 1900—Loma del León, Panama; idem, Auk, 18, p. 358, 1901—Divalá, Panama; Berlepsch and Hartert, Nov. Zool., 9, p. 119, 1902—La Unión and La Prición, Caura River, Venezuela; Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Ceiba, Honduras; Thayer and Bangs, l.c., 46, p. 214, 1906—savanna of Panama; Cole, l.c., 50, p. 118, 1906—Chichen-Itzá, Yucatan; Hellmayr, Nov. Zool., 13, p. 47, 1906—Chaguaramas and Laventille, Trinidad; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 79, 1907—Los Amates, Motagua Valley, Guatemala; Ihering, Cat. Faun. Braz., 1, p. 23, 1907—São Paulo (Rio Mogy-guassú, Piracicaba), Espirito Santo, Minas Geraes (Marianna), and Paraguay (Puerto Bertoni); Hellmayr, Nov. Zool., 15, p. 93, 1908—Rio Araguaya and Goyáz, Goyáz; Berlepsch, l.c., p. 295, 1908—Cayenne; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 194, 1910—Tucumán; idem, Bol. Soc. Physis, 1, p. 254, 1913—Tucumán and Misiones; Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Alto Paraná; idem, Faun. Parag., p. 36, 1914—Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 66, 1914—Rio Maecurú, Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 354, 1916—Caicara, Orinoco, and Caura Valley, Venezuela; Chubb, Bds. Brit. Guiana, 1, p. 46, 1916—Bartica, Great Falls of Demerara River, Quonga, and Ourumee; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 431, 1916 (monog.); Chubb, Ibis, 1919, p. 41—Zaruma, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 18, 1922—Babahoyo, Ecuador; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 36, 1922—Rio Cogollo and La Ceiba, Venezuela, and El Guaya-bal, Santander, Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 192, 1922—Bonda and La Tigrera, Colombia (crit.); Hallinan, Auk, 41, p. 310, 1924—Rio Algarrobo, Panama; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará; Chapman, Bull. Amer. Mus. N. H., 55, p. 167, 1926—Ecuador (Esmeraldas, coast of Manaví, Chone, Puná

Island, Naránjo, Daule, Portovelo, Santa Rosa) (crit.); Dinelli, El Hornero, 4, p. 277, 1929—cerros of Tucumán; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 470, 1929—Tranqueira, Maranhão, and Amaração, Piahy; Naumburg, Bull. Amer. Mus. N. H., 60, p. 69, 1930—Urucúm, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 88, 1930—San Fermin, Santa Cruz, Bolivia; Pinto, Rev. Mus. Paul., 17, (2), p. 711, 1932—Valparaizo, São Paulo; idem, l.c., 19, p. 67, 1935—Rio Gongogy and Bomfim, Bahia; Roberts, Trop. Agric., 11, p. 92, 1934—Oropuche River, Trinidad; Belcher and Smooker, Ibis, 1936, p. 5—Pointe Gourde and Cumuto savannah, Trinidad (nest and eggs); Peters, Bds. World, 3, p. 110, 1937 (range).

Chamaepelia plumbea Bertoni, Anal. Cient. Parag., 1, No. 1, p. 27, Jan., 1901 — Alto Paraná, Villa Concepción, and Asunción, Paraguay (type in coll. of A. W. de Bertoni).

Claravis pretiosa livida Bangs, Proc. Biol. Soc. Wash., 18, p. 153, 1905—Rio Cauca, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 166, 1930); Chapman, Bull. Amer. Mus. N. H., 36, p. 210, 1917—Dabeiba (Rio Sucio), Noanamá, Los Cisneros, Ricaurte, Puerto Valdivia (lower Cauca), Enconosa, Villavicencio, and Florencia, Colombia; Griscom, Bull. Mus. Comp. Zool., 69, p. 154, 1929—Cana, Darien (crit.); Darlington, l.c., 71, p. 378, 1931—Rio Frio, Magdalena, Colombia.

Claravis cinera [sic] Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 88, 1910—coast of Piahy, Brazil.

Claravis pretiosa pretiosa Bangs, Auk, 24, p. 292, 1907—Boruca, Paso Real, and El Pózo de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 400, 1910—Costa Rica (Bonilla, Pigres, San Sebastian de San José, Laguna de Cartago, Talamanca, San José, Alajuela, La Estrella de Cartago, Pózo Azúl de Pirris, Guápiles, El Hogar, El Pózo de Térraba); Peters, Auk, 30, p. 373, 1913—Camp Mengel, Quintana Roo; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 243, 1918—Gatún, Panama; Griscom, Amer. Mus. Nov., 235, p. 7, 1926—Palmul, Quintana Roo; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 447, 1928—Almirante, Panama; Austin, Bull. Mus. Comp. Zool., 69, p. 371, 1929—Cayo District, British Honduras; Peters, l.c., p. 406, 1929—Lancetilla, Honduras; idem, l.c., 71, p. 298, 1931—Changuinola and Almirante, Panama; Griscom, l.c., 72, p. 322, 1932—Permé and Obaldia, eastern Panama; idem, Bull. Amer. Mus. N. H., 64, p. 116, 1932—Finca Chamá and Chimoxan, Guatemala; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 208, 1932—Eden, Santa Rosita, and Great Falls, Pis Pis River, Nicaragua; Stone, l.c., p. 306, 1932—Lancetilla, Honduras; idem and Roberts, l.c., 86, p. 378, 1934—Descalvados, Matto Grosso; Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Panama; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Uaxactun, Petén, Guatemala; Deignan, Auk, 53, p. 188, 1936—La Ceiba, Honduras; Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 193, 1938—Puerto del Triunfo, Rio San Miguel, Barra de Santiago and Lake Olomega, El Salvador.

Range.—Southeastern Mexico, from Tampico, Tamaulipas, southwards through Central America to Panama and over the

greater part of tropical South America from Colombia, Venezuela, and the island of Trinidad to southern Brazil (Santa Catharina), Paraguay, Bolivia, and northern Argentina (Misiones and Tucumán); west of the Andes south to extreme northwestern Peru (Tumbez).¹

Field Museum Collection.—23: Guatemala (Los Amates, Izabal, 5); El Salvador (Laguna Olomega, San Miguel, 1; Rio San Miguel, San Miguel, 2); Nicaragua (San Gerónimo, Chinandega, 1); Costa Rica (Miravalles, Alajuela, 1; San Gerónimo, Pirris, 2; El Pózo, Puntarenas, 1; San José, San José, 3); Colombia (near Cucuta, Santander del Norte, 1); Venezuela (Cocollar, Sucre, 5; La Ceiba, Trujillo, 1).

Conover Collection.—62: Honduras (Catacamas, Olancho, 2); Costa Rica (El Pózo, Rio Terraba, Puntarenas, 1; Las Cañas, 2; Matina, 1; Boruca, 5; Pirris, San Gerónimo, 3; Alto de Jabillo, 1); Panama (Frances, Chiriquí, 2; Permé, Darien, 1; Obaldia, Darien, 11); Colombia (Munchique, El Tambo, Cauca, 2); Ecuador (Puente de Chimbo, 1; Sara-Yaco, Rio Bobonaza, 2; Achotal, Imbabura, 1; San Mateo, Esmeraldas, 3; Arenillas, El Oro, 1); Venezuela (Rio Cogollo, Périja, 2); Brazil (Tranqueira, Maranhão, 1; Santarém, Pará, 1; Tauary, Rio Tapajóz, 1; Pinhel, Rio Tapajóz, 1; Tome-assú, Rio Acará, 2; Villa Acará, Rio Acará, 4); Bolivia (Rio Surutú, Santa Cruz, 6); Paraguay (Horqueta, 2; 265 km. west of Puerto Casado, 1); Argentina (Eldorado, Misiones, 2).

Claravis godefrida (Temminck). GEOFFROY'S DOVE.

Columba godefrida Temminck, in Temminck and Knip, *Les Pigeons*, 1, Colombes, p. 125, 1811—"Brésil" (descr. of male; type in Paris Museum).

Columba geoffroyi Temminck and Knip, *Les Pigeons*, 1, Colombes, pl. 57, 1811; Temminck, *Hist. Nat. Pige. Gall.*, 1, pp. 297, 476, 1813—Brazil; Wagler, *Syst. Av.*, 1, fol. 17, sp. 84, 1827—Brazil (descr. spec. typ.).

Columba geoffroyi Wied, *Reise Bras.*, 2, p. 341 (8vo ed., p. 340), 1821—Ilha Cachoeirinha, Rio Belmonte, Bahia; idem, *Beitr. Naturg. Bras.*, 4, (2), p. 461, 1833—Mucuri and Belmonte rivers, Bahia (descr. of male and female).

Peristera trifasciata Reichenbach, *Syn. Av.*, *Columb.*, p. [3], 1847;² idem, *Columbariae*, pl. 161, fig. 1430, 1848 (fig. of female).

¹ Birds from southern Brazil, Bolivia, and Paraguay do not appear to be separable from those of Mexico and Central America. Males from western Colombia and western Ecuador are on average slightly paler below, while females are frequently more rufescent on back and wings than any specimens of the same sex from Central and eastern South America. However, we are inclined to agree with Chapman that it serves no practical purpose to recognize formally *C. p. livida*, since only a small percentage of the western individuals are distinguishable.

Ninety-five additional specimens from the entire range examined.

² A nomen nudum in the text, but identifiable through the reference to pl. 161, fig. 1430, published a year or more afterwards. Reichenbach subsequently recognized in his *P. trifasciata* the female of *C. godefrida*.

Peristera geoffroyi Burmeister, Syst. Uebers. Th. Bras., 3, p. 304, 1856—Nova Friburgo, Rio de Janeiro; Bonaparte, Consp. Gen. Av., 2, p. 75, 1857—Brazil; Reichenbach, Vollst. Naturg. Tauben, p. 24, 1862—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 57—Lagõa Santa, Minas Geraes; Pelzel, Orn. Bras., 3, p. 278, 1870—Rio de Janeiro (São Luiz d'Almeida, near Pirahy) and São Paulo (Mattodentro, Ypanemá); Schlegel, Mus. Pays-Bas, Columbæ, p. 139, 1873—Brazil; Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo, Rio de Janeiro; Berlepsch, l.c., p. 242, 1874—Blumenau, Santa Catharina; Salvadori, Cat. Bds. Brit. Mus., 21, p. 494, 1893—Bahia, Brazil; Ihering, Rev. Mus. Paul., 3, p. 402, 1899—Piracicaba, São Paulo; idem, l.c., 4, p. 163, 1900—Nova Friburgo and Cantagallo, Rio de Janeiro.

Chamaepelia mianoptera Bertoni, Anal. Cient. Parag., 1, No. 1, p. 26, Jan., 1901—Alto Paraná, Paraguay (descr. of female; type in coll. of A. de W. Bertoni).

Claravis geoffroyi Ihering, Cat. Faun. Braz., 1, p. 23, 1907—Alto da Serra and Piracicaba, São Paulo; Dabbene, Anal. Mus. Nac. Buenos Aires, 8, p. 194, 1910—Alto Paraná; idem, Bol. Soc. Physis, 1, p. 254, 1913—Rio Paraná, Paraguay, and Iguazú, Misiones; Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Iguazú, Misiones; idem, Faun. Parag., p. 36, 1914—Alto Paraná, Paraguay.

Claravis godefrida Peters, Bds. World, 3, p. 111, 1937 (range).

Range.—Southeastern Brazil, from southern Bahia (Rio Belmonte) to Santa Catharina, and the adjacent districts of Misiones and Paraguay.¹

Claravis mondetoura ochoterena van Rossem.² OCHOTERENA'S DOVE.

Claravis mondetoura ochoterena van Rossem, Trans. San Diego Soc. N. H., 8, p. 7, 1934—Jalapa, Vera Cruz, Mexico (type in British Museum); Peters, Bds. World, 3, p. 110, 1937 (range).

Peristera mondetoura (not of Bonaparte) Sumichrast, La Naturaleza, 5, p. 282, 1881—Omealca and Jocuila, Vera Cruz; Salvadori, Cat. Bds. Brit. Mus., 21, p. 495, 1893—part, spec. a, Jalapa; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 256, 1902—part, Vera Cruz (Jalapa, Omealca).

Claravis mondetoura Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 435, 1916—part, Vera Cruz (Jalapa, Orizaba, Omealca, Jocuila).

¹ *Material examined*.—Brazil, São Paulo: Mattodentro, 4; Ypanemá, 3. The single female secured by Sztolcman at Lake Rumucucha, Valley of Huayabamba, northern Peru, and recorded by Taczanowski (Proc. Zool. Soc. Lond., 1882, p. 48; Orn. Pér., 3, p. 250, 1886) s. n. *Peristera geoffroyi*, probably pertains to a separable form, differing by its rufous under wing coverts.

² *Claravis mondetoura ochoterena* van Rossem: Male similar to *C. m. salvini*, but dorsal coloration darker and more fuscous (less grayish) slate, under parts darker and with the "red" of the pectoral region extending back laterally to tinge the slate color of the flanks. Female unknown. In view of the variation in other races of this scarce species it must be shown by the study of adequate material whether the unique type (the only adult male existing in collections) is anything but an individual variant of *C. m. salvini*.

Range.—Subtropical zone of southeastern Mexico, in State of Vera Cruz (Jalapa, Orizaba, Omealca, Jocuila).

Claravis mondetoura salvini Griscom.¹ SALVIN'S DOVE.

Claravis mondetoura salvini Griscom, Occ. Pap. Bost. Soc. N. H., 5, p. 289, 1930—Volcan San Lucas, Guatemala (type in Dwight Collection, the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 64, p. 116, 1932—San Lucas; van Rossem, Trans. San Diego Soc. N. H., 8, p. 6, 1934—Volcan de Fuego, Guatemala (crit.); Peters, Bds. World, 3, p. 110, 1937 (range); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 362, 1939—Santa Rosa, Comitán, Chiapas.

Peristera mondetoura (not of Bonaparte) Salvin, Ibis, 1874, p. 99—Volcan de Fuego, Guatemala; Salvadori, Cat. Bds. Brit. Mus., 21, p. 495, 1893—part, spec. b-e, Volcan de Fuego; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 256, 1902—part, Calderas, Volcan de Fuego.

Claravis mondetoura Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 435, 1916—part, Guatemala (Volcan de Fuego).

Range.—Subtropical zone of extreme southeastern Mexico (Santa Rosa, Comitán, Chiapas), Guatemala (San Lucas; Volcan de Fuego) and Honduras (Volcan de Puca).

***Claravis mondetoura mondetoura** (Bonaparte). MADAME MONDÉTOUR'S DOVE.

Peristera mondetoura Bonaparte, Compt. Rend. Acad. Sci. Paris, 42, p. 765, 1856—Caracas, Venezuela (descr. of male; type in Paris Museum examined); idem, l.c., p. 957, 1856 (descr. of female); idem, Icon. Pigeons, pl. 126, figs. 1 (male), 2 (female), 1858—Caracas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 139, 1868—Birris [de Cartago], Costa Rica (descr. of female); Frantzius, Journ. Orn., 17, p. 371, 1869—Birris; Sclater, Proc. Zool. Soc. Lond., 1873, pp. 780, 783—Huasampilla, Cuzco, Peru; Taczanowski and Berlepsch, l.c., 1885, p. 111—above San Rafael, Ecuador; idem, Orn. Pér., 3, p. 251, 1886—Huasampilla, Peru; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Cot de Cartago, Costa Rica; Allen, Bull. Amer. Mus. N. H., 2, p. 151, 1889—"Bogotá," Colombia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 495, 1893—part, spec. f-l, New Granada, Venezuela, Ecuador (Monji, Jima), and Peru (Huasampilla); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 256, 1902—part, Costa Rica

¹ *Claravis mondetoura salvini* Griscom, originally based upon a single male, is stated by van Rossem to differ from the nominate race in the male sex by more extensive white abdominal zone and uniform slaty under wing coverts and axillaries, while a single female has the rump slightly darker and less reddish. The coloration of the under wing coverts, however, is of little consequence in this dove, and cannot be relied upon for subspecific distinction. Whether the slightly smaller size (wing, 110–114) of the four recorded Guatemalan examples is of any importance, remains to be ascertained by further material. A single (not quite mature) male from Volcan de Puca, Honduras (April 2, 1889; H. Wittkugel) merely differs from other Central and South American specimens by more extensive buffy white abdominal zone. It measures: wing, 116; tail, 83 mm.

(Birris, Cartago, Irazú), Panama (Boquete), and Colombia to Venezuela and Peru; Berlepsch and Stolzmann, *Ornis*, 13, p. 125, 1906—Rio Cadena, Marcapata, Peru.

Peristera lansbergii Schlegel, *Mus. Pays-Bas, Columbae*, p. 139, 1873—Caracas, Venezuela (type in Leiden Museum); Salvin, *Ibis*, 1874, p. 455 (crit.).

Claravis mondetoura Bangs, *Proc. New Engl. Zool. Cl.*, 3, p. 23, 1902—Boquete and Volcan de Chiriquí, Panama; Carriker, *Ann. Carnegie Mus.*, 6, p. 401, 1910—Costa Rica (Cartago, La Estrella de Cartago, Volcan de Irazú); Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 435, 1916—part, Costa Rica (Birris de Cartago, Cot de Cartago, Estrella de Cartago, Volcan de Irazú, Volcan de Turrialba), Panama (Boquete, Volcan de Chiriquí), Colombia (Bogotá), Ecuador (Monji, San Rafael, Jima), Peru (Huasampilla, Rio Cadena), and Venezuela (Culata, near Mérida; Caracas); Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 168, 1926—Zamora, Ecuador; Sassi, *Temminckia*, 3, p. 314, 1938—Chicua, Irazú, Costa Rica (crit.).

Claravis mondetoura mondetoura Griscom, *Occ. Pap. Bost. Soc. N. H.*, 5, p. 288, 1930 (crit.); Darlington, *Bull. Mus. Comp. Zool.*, 71, p. 378, 1932—Rio Frio, Magdalena, Colombia; van Rossem, *Trans. San Diego Soc. N. H.*, 8, p. 5, 1934 (crit.); Peters, *Bds. World*, 3, p. 110, 1937 (range).

Claravis mondetoura pulchra Griscom, *Occ. Pap. Bost. Soc. N. H.*, 5, p. 288, 1930—Boquete, western Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, *Bull. Mus. Comp. Zool.*, 78, p. 311, 1935—Costa Rica and western Panama; Peters, *Bds. World*, 3, p. 110, 1937 (range).

Claravis mondetoura umbrina Griscom, *Occ. Pap. Bost. Soc. N. H.*, 5, p. 288, 1930—La Estrella de Cartago, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, *Auk*, 50, p. 300, 1933—San Joaquín de Dota, Costa Rica; Peters, *Bds. World*, 3, p. 110, 1937 (range).

Claravis mondetoura inca van Rossem, *Trans. San Diego Soc. N. H.*, 8, p. 6, 1934—Huasampilla [Dept. Cuzco], Peru (type in British Museum); Peters, *Bds. World*, 3, p. 111, 1937 (range).

Range.—Subtropical zone of Costa Rica, Panama (Boquete; Volcan de Chiriquí), Colombia ("Bogotá"; Las Ventanas, Santander; Rio Frio, Magdalena; Munchique), western Venezuela (Mérida region to the vicinity of Caracas), eastern Ecuador (San Rafael, Zamora), eastern Peru (Huasampilla and Rio Cadena, Dept. Cuzco), and northern Bolivia (Omeja, Dept. La Paz).¹

¹ We are unable to recognize any of the recently proposed races, which appear to have been based solely upon individual variation, the available material being notoriously inadequate. The coloration of the axillars and under wing coverts, one of the principal characters used for the discrimination of the inhabitants of southern Central America, varies a good deal within the same locality. Two adult males from the Caracas region and one from Culata, near Mérida, have them uniform slate color, while they are intermixed with tawny in Bonaparte's type and another specimen from Culata. On the other hand, a male from Costa Rica (south slope of the Volcan de Irazú) shows a much greater amount of rufous than any South American bird, in contradistinction to two others from Irazú and Boquete, in which axillars and under wing coverts are as plain slate color as in the Venezuelan specimens mentioned above. Size is of no consequence either. Males

Field Museum Collection.—1: Colombia ("Bogotá," 1).

Conover Collection.—7: Costa Rica (Las Vueltas, 1); Colombia (Las Ventanas, Santander, 1; Munchique, El Tambo, Cauca, 5).

Genus METRIOPELIA Bonaparte

Metriopelia Bonaparte, *Compt. Rend. Acad. Sci. Paris*, **40**, p. 23, Jan., 1855—type, by subs. desig. (Gray, *Cat. Gen. Subgen. Bds.*, p. 101, 1855), *Columba melanoptera* Molina.

Metriopeleia Gray, *Cat. Gen. Subgen. Bds.*, p. 101, April, 1855—type, by orig. desig., *Columba melanoptera* Molina (emendation of *Metriopelia* Bonaparte, "1854").

**Metriopelia melanoptera melanoptera* (Molina). BLACK-WINGED DOVE.

Columba melanoptera Molina, *Saggio Stor. Nat. Chile*, pp. 236, 345, 1782—Chile (descr. mala); Deautier and Steullet, *Rev. Chil. Hist. Nat.*, **33**, p. 474, 1929 (crit.).

Columba boliviana (d'Orbigny and Lafresnaye MS.) Eydoux and Gervais, *Mag. Zool.*, **6**, cl. 2, p. 33, pl. 75, 1836—"Boliviae montes" (type in Paris Museum); iidem, *Voy. Favorite*, **5**, (2), p. 59, pl. 23, 1839—"Boliviae montes"; Knip and Prévost, *Les Pigeons*, **2**, p. 43, pl. 22, ca. 1840—Bolivia and Chile; Bridges, *Proc. Zool. Soc. Lond.*, **9**, "1841," p. 95, 1842—valleys of the Andes [of Colchagua], Chile; Fraser, l.c., **13**, p. 115, 1843—Andes of Chile.

Zenaida boliviana Darwin, *Zool. Beagle*, **3**, Birds, p. 116, 1841—Valparaiso, Chile; Des Murs, in Gay, *Hist. Pol. Fís. Chile*, *Zool.*, **1**, p. 379, 1847—Chile; Philippi, *Reise Wüste Atacama*, p. 163, 1860—Miguel Diaz, Antofagasta, Chile; Philippi, *Anal. Univ. Chile*, **31**, p. 268, 1868—central provinces of Chile; MacFarlane, *Ibis*, 1887, p. 202—Coquimbo, Chile; Philippi, *Ornis*, **4**, p. 159, 1888—"Pacpote," Atacama, Chile.

Zenaida innotata Hartlaub, *Rev. Mag. Zool.*, (2), **3**, p. 74, 1851—Chile (type in Bremen Museum).

Chamaepelia melanura (Reichenbach MS.) Bibra, *Denks. Math.-Naturw. Kl. Akad. Wiss. Wien*, **5**, p. 130, 1853—Cordillera [of Santiago], Chile (nomen nudum); idem, *Journ. Orn.*, **3**, p. 56, 1855 (reprint).

from Venezuela and Colombia have wings from 115 to 120, those from Costa Rica and Chiriquí measure from 114 to 120. Females present no constant difference in coloration, a female from Boquete being indistinguishable from the Venezuelan ones. Van Rossem separated a single male from southern Peru on account of smaller size (wing, 111; tail, 76) and greater extent of rufous under the wing, but two males from Omeja, Bolivia, do not substantiate his diagnosis. Their wings measure 117½, 125, resp., being thus, if anything, slightly larger than in topotypes. They certainly have not more white underneath, and the intermixture of rufous under the wings corresponds to the average of typical *mondetoura*.

Additional material examined.—Costa Rica: southern slope of Irazú, 2.—Panama: Boquete, Chiriquí, 2.—Colombia: Bogotá, 3.—Venezuela: Caracas, 2; Silla de Caracas, 2; Galipán, near Caracas, 2; Culata, Mérida, 3.—Bolivia: Omeja, La Paz, 2.

- Metriopelia melanoptera* Bonaparte, Consp. Gen. Av., 2, p. 75, 1857 (diag.); Burmeister, Journ. Orn., 8, p. 259, 1860—mountains of western Argentina; idem, Reise La Plata St., 2, p. 496, 1861—Cordilleras of Argentina above 6,000 feet; Selater, Proc. Zool. Soc. Lond., 1867, pp. 330, 339—Chile; idem and Salvin, l.c., 1869, p. 155—Tinta, Cuzco, Peru; Taczanowski, l.c., 1874, p. 555—"Arancocha" [=Acanchocla, Peru; Selater and Salvin, l.c., 1876, p. 17—Tinta, Peru; Allen, Bull. Mus. Comp. Zool., 3, p. 355, 1876—Vilquechico, Lake Titicaca; Reed, Anal. Univ. Chile, 49, p. 565, 1877—Cordillera of Cauquenes, Colchagua, Chile; Taczanowski, Orn. Pér., 3, p. 239, 1886—Peru (Puna de Ayacucho and Junín; Tinta); Selater, Proc. Zool. Soc. Lond., 1886, p. 402—"Lalcalhuay," Tarapacá, Chile; idem and Hudson, Arg. Orn., 2, p. 142, 1889—Cordilleras of western Argentina; Frenzel, Journ. Orn., 39, p. 123, 1891—Sierra de Córdoba; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 394—Lima, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 497, 1893—part, spec. f-r, Peru (Tinta, Lima), Tarapacá, Chile, and Cordillera of Mendoza; Koslowsky, Rev. Mus. La Plata, 6, p. 286, 1895—Cordillera of Chilecito, La Rioja; Salvin, Nov. Zool., 2, p. 21, 1895—near Cajamarca, Peru; Reed, Anal. Univ. Chile, 93, p. 208, 1896—Chile; Lane, Ibis, 1897, p. 298—"Lalcalhuay," Huasco, and Sacaya, Tarapacá, Chile; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 32, 1897—northwest of Lesser, Salta; Schalow, Zool. Jahrb., Suppl., 4, p. 670, 1898—Punta Teatinos, Coquimbo, Chile; Gosse, in Fitzgerald, The Highest Andes, p. 348, 1899—Aconcagua valleys, Puente del Inca, Mendoza; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—Hacienda de Queta, Tarma, Junín, Peru; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 217, 1902—Taff, Cuesta de Taff, and Las Ciénagas, Tucumán; Lönnberg, Ibis, 1903, p. 446—Moreno, Puna of Jujuy; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Santa Catalina, Jujuy; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Tucumán localities; Berlepsch and Stolzmann, Ornith., 13, pp. 72, 130, 1906—Cora-cora, Ayacucho, and Puno, Peru; Hartert and Venturi, Nov. Zool., 16, p. 262, 1909—Las Ciénagas, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 193, 1910—Jujuy, La Rioja, Tucumán, and Cordillera of Mendoza; Costes, Rev. Chil. Hist. Nat., 21, p. 163, 1917—Valle de Marga-Marga, Valparaíso, Chile; Sanzin, El Hornero, 1, p. 147, 1918—Potrerillo, Mendoza; Barros, Rev. Chil. Hist. Nat., 24, p. 151, 1920—Nilahue, Curicó, Chile; idem, l.c., 25, p. 171, 1921—Cordillera of Aconcagua, Chile; Giacomelli, El Hornero, 3, p. 81, 1923—La Rioja; Gigoux, Rev. Chil. Hist. Nat., 28, p. 85, 1924—Caldera, Atacama, Chile; Housse, l.c., 29, p. 149, 1925—San Bernardo, Santiago, Chile; Jaffuel and Piriñ, l.c., 31, p. 111, 1927—Marga-Marga Valley, Valparaíso, Chile; Barros, l.c., 34, p. 315, 1930—Las Leñas and Cajón de las Vacas, Cordillera of Mendoza; Budin, El Hornero, 4, p. 403, 1931—Abra Pampa, Jujuy (up to 4,500 meters).
- Melopelia melanoptera* Schlegel, Mus. Pays-Bas, Columbæ, p. 153, 1873—Bolivia and Santiago, Chile.
- Metriopelia melanoptera melanoptera* Chubb, Ibis, 1919, p. 42—Peru (Arequipa) and Bolivia (Parotani, Cochabamba; Oruro and Challapata, Oruro; El Cabrada, Chuquisaca); Chapman, Bull. U. S. Nat. Mus., 117, p. 47, 1921—La Raya and Pisac, Urubamba, Peru; Peters, Bull. Mus. Comp.

Zool., 65, p. 289, 1923—Huanululuan, western Rio Negro (nesting); Wetmore, Bull. U. S. Nat. Mus., 133, p. 177, 1926—Zapala, Neuquén, and near Potrerillos, Mendoza; idem, Univ. Calif. Pub. Zool., 24, p. 431, 1926—Arroyo Anecon Grande, Rio Negro; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 345, 1932—Tacna to Colchagua, Chile; Barros, Rev. Chil. Hist. Nat., 38, p. 140, 1934—Est. Peuco, O'Higgins, Chile; Peters, Bds. World, 3, p. 103, 1937 (range).

Range.—Temperate and Puna zones of Peru, Bolivia, Chile (from Tacna south to Colchagua), and western Argentina (south to western Rio Negro).¹

Field Museum Collection.—4: Peru (Macate, Ancachs, 2); Chile (Los Condes, Santiago, 2).

Conover Collection.—19: Peru (Santiago, 1; Puno, Puno, 1; Chucuito, Puno, 8); Bolivia (Vacas, Cochabamba, 4); Argentina, Tucumán (La Ciénaga, 1; Colalao Valley, 1); Chile (Los Condes, Santiago, 1; Cordillera de Colchagua, 2).

****Metriopelia melanoptera saturator* Chubb.² ECUADORIAN BLACK-WINGED DOVE.**

Metriopelia melanoptera saturator Chubb, Bull. Brit. Orn. Cl., 38, p. 32, 1917—Cañar, Ecuador (type in British Museum); idem, Ibis, 1919, p. 42—Cañar and Riobamba, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 18, 1922—Tablón (road to Papallacta), Sananlajas (foot of Chimborazo), and Illiniza, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 168, 1926—Cerro Huamani, Antisana, and Mount Chimborazo; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 356, 1927—Val de Tumbaco, Ecuador; idem, l.c., (2), 4, p. 621, 1932—Las Palmas, Cuenca, Ecuador; Peters, Bds. World, 3, p. 103, 1937 (range).

Columba boliviana (not of Eyndoux and Gervais) Jardine, Contrib. Orn., 1849, p. 44—Andes of Quito (13,000–14,000 ft.).

Peristera melanoptera (not *Columba melanoptera* Molina) Sclater, Proc. Zool. Soc. Lond., 28, p. 82, 1860—Panza, Ecuador.

¹ Specimens from southern Peru, Bolivia, and Chile agree well together in dimensions and coloration, and three adults from Neuquén are not different either. Birds from Junín (Tarma) and the upper Marañón (Cajamarca, Santiago) are slightly darker throughout, and thus verge in the direction of the Ecuadorian race.

Additional material examined.—Peru: Cajamarca, 3; Santiago, 3; Tarma, Junín, 1; Tinta, Cuzco, 2; Arequipa, 1.—Bolivia: Parotani, 2; Challapata, Oruro, 1.—Chile: "Llallcalhuay," Tarapacá, 1; central Chile, 4.—Argentina: Las Ciénagas, Tucumán, 2; Cordillera of Mendoza, 1; Lago Nahuel Huapi, Neuquén, 1; Arroyos, Neuquén, 1; Piedra del Aguila, Neuquén, 1.

² *Metriopelia melanoptera saturator* Chubb differs from the nominate race by being decidedly darker on head, back, and flanks, and by the paler and duller vinaceous color of the under parts.

Four additional specimens from the Páramo zone of Ecuador (Illiniza, vicinity of Quito) examined.

Metriopelia melanoptera Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 311—Cechce, Ecuador; iidem, l.c., 1885, p. 111—Chimborazo; Salvadori, Cat. Bds. Brit. Mus., 21, p. 497, 1893—part, spec. a-e, Colombia (Pasto) and Ecuador (vicinity of Quito, Sical); Hartert, Nov. Zool., 5, p. 503, 1898—Páramo near Cayambe; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 36, 1900—Cañar, Chaupi, and Chuquipocquo, Ecuador; Goodfellow, Ibis, 1902, p. 227—Cotopaxi, Ecuador.

Range.—Paramo zone of Ecuador and extreme southern Colombia (Pasto).

Conover Collection.—12: Ecuador (Secas, Oriente, 7; Cerro Cotopaxi, León, 1; Cerro Puntas, Oriente, 2; Nudo Sabanilla, Loja, 2).

Genus LEPTOTILA Swainson

Leptotila Swainson, Nat. Hist. & Classif. Bds., 2, p. 349, July 1, 1837—type, by monotypy, "*Peristera rufaxilla* [Selby], Nat. Libr., 5, pl. 24"=*Columba rufaxilla* Richard and Bernard.

Leptoptila G. R. Gray, List Gen. Bds., 2nd ed., p. 75, 1841—emendation (quoted in synonymy).

Homoptila Salvadori, Atti R. Accad. Sci. Torino, 6, p. 131, 1871—type, by monotypy, *Homoptila decipiens* Salvadori.

Engyptila Sundevall, Meth. Nat. Av. Disp. Tent., 2, p. 156, 1873—new name for *Leptotila* Swainson.

Leptopila Schlegel, Mus. Pays-Bas, 4, No. 35, p. 158, 1873—emendation of *Leptotila* Swainson.

Aechmoptila Coues, Bull. U. S. Geol. & Geog. Surv. Terr., 4, No. 1, p. 48, 1878—new name for *Leptotila* Swainson.

**Leptotila jamaicensis jamaicensis* (Linnaeus). JAMAICAN DOVE.

Columba jamaicensis Linnaeus, Syst. Nat., 12th ed., 1, p. 283, 1766—based on "Columba minor ventre candido" Sloane (Voy. Jam., 2, p. 303, pl. 262, fig. 1), "Le Pigeon de la Jamaïque" Brisson (Orn., 1, p. 134), etc.; Jamaica.

Peristera jamaicensis Gosse, Bds. Jam., p. 313, 1847—Jamaica (habits).

Leptoptila albifrons "Gray" Bonaparte,¹ Consp. Gen. Av., 2, p. 74, "April 15, 1855" [=1857]—"Mexico and Cùba" (part, descr. of adult; type in Paris Museum).

Leptoptila jamaicensis March, Proc. Acad. Nat. Sci. Phila., 1863, p. 302—Jamaica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 557, 1893—Jamaica.

Leptopila jamaicensis Schlegel, Mus. Pays-Bas, 4, No. 35, p. 158, 1873—part, spec. No. 1, Jamaica.

¹ *Per[istera] albifrons* Bonaparte (Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 99, for Jan. 15, 1855) is a nomen nudum. The author merely states that a fine specimen, no doubt the one he afterwards described, was procured by Verreaux for the Paris Museum, where it was examined by Salvadori (Cat. Bds. Brit. Mus., 21, p. 545, note, 1893).

Engyptila jamaicensis Cory, Auk, 4, p. 111, 1887—Jamaica (descr.); idem, Bds. W. Ind., p. 212, 1889 (descr.); idem, Cat. W. Ind. Bds., p. 97, 1892—Jamaica; Scott, Auk, 9, p. 123, 1892—vicinity of Boston, Jamaica; Field, Auk, 11, p. 123, 1894—Port Henderson, Jamaica.

Leptotila jamaicensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 441, 1916—Jamaica (monog.).

Leptotila jamaicensis jamaicensis Danforth, Auk, 45, p. 484, 1928—Duncan's Bay, Black River, and Constant Spring; Peters, Bds. World, 3, p. 125, 1937 (range).

Range.—Island of Jamaica, Greater Antilles.

Field Museum Collection.—5: Jamaica (Priestman's River, Surrey, 4; Stony Hill, Surrey, 1).

Conover Collection.—1: Jamaica (Priestman's River, 1).

****Leptotila jamaicensis collaris* (Cory).¹ GRAND CAYMAN DOVE.**

Engyptila collaris Cory, Auk, 3, p. 498, 1886—Grand Cayman (type in coll. of C. B. Cory, now in Field Museum of Natural History); idem, l.c., p. 502, 1886—Grand Cayman; idem, Auk, 4, p. 112, 1887 (descr.); idem, Bds. W. Ind., p. 213, 1889 (descr.); idem, Cat. W. Ind. Bds., pp. 97, 129, 1892—Grand Cayman.

Leptotila collaris Salvadori, Cat. Bds. Brit. Mus., 21, p. 559, 1893—Grand Cayman (ex Cory); Lowe, Ibis, 1911, p. 145—Grand Cayman.

Leptotila collaris Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 443, 1916—(monog.).

Leptotila jamaicensis collaris Bangs, Bull. Mus. Comp. Zool., 60, p. 307, 1916—Grand Cayman (crit.); Peters, Bds. World, 3, p. 125, 1937 (range).

Range.—Island of Grand Cayman, south of Cuba.

Field Museum Collection.—7: Grand Cayman (unspecified, 7).

****Leptotila jamaicensis neoxena* (Cory).² ST. ANDREWS ISLAND DOVE.**

Engyptila neoxena Cory, Auk, 4, p. 179, 1887—St. Andrews Island (type in coll. of C. B. Cory, now in Field Museum of Natural History); idem, l.c., p. 181, 1887—St. Andrews.

Leptotila neoxena Salvadori, Cat. Bds. Brit. Mus., 21, p. 559, 1893 (ex Cory).

Leptotila neoxena Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 444, 1916 (monog.).

Leptotila jamaicensis neoxena Peters, Bds. World, 3, p. 125, 1937 (range).

¹*Leptotila jamaicensis collaris* (Cory), a very unsatisfactory race, is hardly worth recognition. The only trifling divergency is its smaller size, as has been pointed out by the late Outram Bangs.

²*Leptotila jamaicensis neoxena* (Cory), in coloration, is just intermediate between *jamaicensis* and *gaumeri*, being lighter above and more grayish brown than the former, but darker and more brownish than the latter.

Range.—Island of St. Andrews, southern Caribbean Sea.

Field Museum Collection.—2: St. Andrews, 2.

****Leptotila jamaicensis gaumeri* (Lawrence). GAUMER'S DOVE.**

Engyptila gaumeri Lawrence, Ann. N. Y. Acad. Sci., 3, p. 157, 1885—Silam, Yucatan, Mexico (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

Engyptila jamaicensis (not *Columba jamaicensis* Linnaeus) Salvin, Ibis, 1885, p. 193—Cozumel Island (crit.); idem, Ibis, 1889, p. 378—Holbox, Mugerres, and Cozumel Islands.

Leptotila gaumeri Salvadori, Cat. Bds. Brit. Mus., 21, p. 557, 1893—Yucatan, Cozumel, Mugerres, and Holbox; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 261, 1902—same localities.

Leptotila gaumeri Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 445, 1916 (monog.).

Leptotila jamaicensis gaumeri Peters, Bds. World, 3, p. 125, 1937 (range).

Range.—Northern Yucatan and Cozumel, Mugerres, and Holbox Islands.

Field Museum Collection.—2: Mexico (Cozumel Island, Quintana Roo, 2).

****Leptotila cassinii cerviniventris* (Sclater and Salvin). VINA-CEOUS-BREASTED CASSIN'S DOVE.**

Leptotila cerviniventris Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 59, pub. June 1, 1868—[Choctum], Vera Paz, Guatemala (cotypes in Salvin-Godman Collection, now in British Museum); Salvadori, Cat. Bds. Brit. Mus., 21, p. 561, 1893—British Honduras (Cayo District) and Guatemala (Choctum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 263, pl. 67, fig. 2, 1902—same localities.

Leptotila cassinii (not of Lawrence, 1867) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 137, 1868—San José and Tucurríqui, Costa Rica; Frantzius, Journ. Orn., 17, p. 371, 1869—Tucurríqui, Costa Rica.

Leptotila cerviniventris Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 25, 1874—Guatemala.

Leptotila cassinii Boucard, Proc. Zool. Soc. Lond., 1878, p. 43—San Carlos, Costa Rica; Underwood, Ibis, 1896, p. 447—Volcan de Miravalles, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 262, 1902—part, Nicaragua (Rio Escondido) and Costa Rica (San José, Tucurríqui, Pacuare, Jiménez, San Carlos, Miravalles, Cartago, Carrillo).

Engyptila cassinii Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Pacuare and Jiménez, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 523, 1893—Rio Escondido, Nicaragua.

Engyptila vinaceiventris Ridgway, Proc. U. S. Nat. Mus., 10, p. 583, 1888—Truxillo, Honduras (type in U. S. National Museum).

Leptoptila vinaceiventris Salvadori, Cat. Bds. Brit. Mus., 21, p. 561, 1893—Honduras and Nicaragua (La Libertad, Chontales); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 263, 1902—Honduras (Truxillo) and Nicaragua (La Libertad, Chontales; Rio Coco; Rio Escondido).

Leptotila vinaceiventris Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Yaruca, Honduras.

Leptotila cassini vinaceiventris Bangs, Proc. Biol. Soc. Wash., 19, p. 102, 1906—Volcan Miravalles and Juan Viñas, Costa Rica (crit.); idem, l.c., 22, p. 30, 1909—Tenorio, Cerro Santa María, and La Vijagua, Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 402, 1910—Costa Rica (Bonilla, Jiménez, Tenorio, La Vijagua, Cachí, Cerro de Santa María, Cariblanco, Guápiles, El Hogar, Cuábire, and Rio Sicsola) (habits).

Leptotila cassini cerviniventris Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 458, 1916—Costa Rica to Guatemala (monog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 118, 1932—Secanquim and Finca Chamá, Guatemala; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 208, 1932—Great Falls, Pis Pis River, Nicaragua; Carriker and de Schauensee, l.c., 87, p. 414, 1935—Quirigua and El Pilar, Guatemala; Deignan, Auk, 53, p. 188, 1936—La Ceiba, Honduras; Peters, Bds. World, 3, p. 127, 1937 (range); Berlioz, Bull. Mus. Nat. Hist. Paris, (2), 11, p. 362, 1939—Santa Rosa, Comitán, Chiapas.

Leptotila cassini cervineiventris Peters, Bull. Mus. Comp. Zool., 69, p. 407, 1929—Lancetilla and near Tela, Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 306, 1932—Lancetilla, Honduras.

Range. Tropical zone of the Caribbean lowlands of extreme southeastern Mexico (Santa Rosa, Comitán, Chiapas), Guatemala, British Honduras, Honduras, Nicaragua, and Costa Rica (occasionally also on the Pacific slope of Guanacaste).¹

Field Museum Collection.—9: Guatemala (unspecified, 1); Nicaragua (San Emilio, Rivas, 4); Costa Rica (Siquirres, Limón, 1; 3 miles south of Limón, Limón, 1; Limón, Limón, 1; Matina, Limón, 1).

Conover Collection.—14: Guatemala (Escobas, Izabal, 1); Honduras (La Ceiba, Atlantida, 1; Catacombas, Cortes, 1; Cerro Nieve, Santa Barbara, 2); Costa Rica (Ontario, 1; Miravalles, Guanacaste, 3; La Iberia Farm, Volcan Turrialba, 5).

****Leptotila cassinii cassinii* (Lawrence). CASSIN'S DOVE.**

Leptoptila cassinii Lawrence, Proc. Acad. Nat. Sci. Phila., 1867, p. 94—line of Panama Railroad (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York).

¹ It is now conceded that birds from Honduras and southwards (*vinaceiventris*) are not separable from the Guatemalan specimens.

Five additional specimens from Guatemala (Choctum, Vera Paz) and one from Costa Rica (Turrialba) examined.

Leptoptila cassini Rowley, Orn. Misc., 3, p. 79, pl. 92, 1878—San Carlos, Costa Rica (nest and eggs); Boucard, Proc. Zool. Soc. Lond., 1878, p. 43—San Carlos, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 560, 1893—Panama (Lion Hill) and Veraguas (Montaña del Vermejo); idem and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 9, 1899—forest near Laguna della Pita, Darien; Bangs, Proc. New Engl. Zool. Cl., 2, p. 15, 1900—Loma del León, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 262, pl. 68, fig. 1, 1902—part, Panama (Lion Hill) and Colombia (Turbo, Rio Truando).

Leptoptila verreauxi (not of Bonaparte) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 175—Turbo and Rio Truando, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1862—Panama Railroad.

Leptotila cassini cassini Ridgway, Bull. U. S. Nat. Mus., 50, Part 1, p. 456, 1916—Panama to northern Colombia (monog.); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 243, 1918—Gatún, Panama; Griscom, Bull. Mus. Comp. Zool., 69, p. 154, 1929—El Tigre (Rio Cupe) and Cana, Darien; Peters, l.c., 71, p. 299, 1931—Almirante, Changuinola, Guábo, and Cricamola, Panama; Griscom, l.c., 72, p. 323, 1932—Permé, eastern Panama; idem, l.c., 78, p. 311, 1935—Panama; Peters, Bds. World, 3, p. 127, 1937 (range).

Leptotila cassini Chapman, Bull. Amer. Mus. N. H., 36, p. 213, 1917—Rio Salaquí (Atrato region), Opon and Puerto Berrio (lower Magdalena), Colombia; Hallinan, Auk, 41, p. 311, 1924—Gatún, Panama (nest).

Leptoptila cassini cassini Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 196, 1922—Mount Sapo, Jesusito, and Rio Esnápe, Darien.

Range.—Tropical zone of Panama (except Pacific slope of western section) and northern Colombia (Turbo; Rio Truando; Rio Salaquí, lower Atrato; Opon and Puerto Berrio, lower Magdalena).

Conover Collection.—10: Panama (Permé, Darien, 1; Port Obaldia, Darien, 9).

****Leptotila cassinii rufinucha* (Slater and Salvin).¹ RUFOUS-NAPED CASSIN'S DOVE.**

Leptoptila rufinucha Slater and Salvin, Nomencl. Av. Neotrop., p. 162, 1873—"Veragua"—Chiriquí, Panama (cotypes in Salvin-Godman Collection, now in British Museum); Salvadori, Cat. Bds. Brit. Mus., 21, p. 562, 1893—Volcan de Chiriquí and Bugaba; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 264, pl. 68, fig. 2, 1902—Costa Rica (Pózo Azul, Las Trojas, Alajuéla, "Candelaria," Pózo Pital, Tambor, Pirris) and Panama (Volcan de Chiriquí, Bugaba, Divalá, Veragua); Bangs, Auk, 24, p. 292, 1907—Boruca and El Pózo, Térraba Valley, Costa Rica.

Leptoptila cassini (not of Lawrence) Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Bugaba and Volcan de Chiriquí, Panama.

Engyptila rufinucha Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Pózo Azul de Pirris, Las Trojas, and Alajuéla, Costa Rica; Cherrie, Anal.

¹*Leptotila cassinii rufinucha* (Slater and Salvin), though well-characterized by the rufous (pecan brown to verona brown) hind crown, is clearly conspecific with *cassinii*, since certain individuals are intermediate to *L. c. cerviniventris*.

Inst. Fis.-Geogr. y Mus. Nac. Costa Rica, 4, p. 146, 1893—Palmar, Lagarto, Boruca, and Buenos Aires, Costa Rica.

Leptotila rufinucha Bangs, Auk, 18, p. 358, 1901—Divalá, Chiriquí; Carriker, Ann. Carnegie Mus., 6, p. 403, 1910—Costa Rica (Trojas, Pígres, El General de Terraba, El Pózo, Boruca, Buenos Aires; habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 460, 1916—western Costa Rica and Panama (monog.); Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Pacific slope of Chiriquí and Veraguas.

Leptotila cassini rufinucha Peters, Bds. World, 3, p. 127, 1937 (range).

Range.—Tropical zone of the Pacific slope of southwestern Costa Rica (north to the head of the Gulf of Nicoya) and western Panama, east to Veraguas.

Field Museum Collection.—6: Costa Rica, Puntarenas (Palmar, 1; Boruca, 3; Volcan de Oso, 1; El Pózo, 1).

Conover Collection.—17: Costa Rica (El Pózo, Puntarenas, 1; Puerto Jiménez, Puntarenas, 5; Buenos Aires, Puntarenas, 2; Volcan de Oso, 4; El General, 1; Boruca, 1; Alto de Jabillo, Pirrís, 2); Panama (Frances, Chiriquí, 1).

****Leptotila ochraceiventris* Chapman.¹ OCHRACEOUS-BELLIED DOVE.**

Leptotila ochraceiventris Chapman, Bull. Amer. Mus. N. H., 33, p. 317, 1914—Zaruma, Prov. del Oro, Ecuador (type in the American Museum of Natural History, New York); idem, l.c., 55, p. 170, 1926—Chone, Rio Coco, Daule, Zaruma, Santa Rosa, Alamor, and Guainche, Ecuador; Peters, Bds. World, 3, p. 128, 1937 (range).

Range.—Tropical and Subtropical zones of southwestern Ecuador.

Conover Collection.—4: Ecuador, Province de los Rios (Isla Silva, Sur, 1; Rio San Antonio, Sur, 2; La Palma, 1).

****Leptotila verreauxi angelica* Bangs and Penard.² WHITE-FRONTED DOVE.**

¹*Leptotila ochraceiventris* Chapman: Above much like *L. c. cassinii*, the hind crown and nape being deep brownish vinaceous approaching livid brown with slight purplish reflections and becoming pale pinkish buff on forehead and supraloral region; remaining upper parts somewhat more olivaceous; below, however, wholly unlike any other species of the genus, the chin and upper throat being white, the breast light purplish vinaceous and more or less sharply defined from the rich, uniform light ochraceous-buff of the abdomen and flanks. Wing, 135; tail, 95–97; bill, 17.

In color of the under parts this species resembles the adult male of *Oreopeleia montana*, except that in the latter the vinaceous pectoral band is broader and deeper in tone, while the chin is buff instead of white.

²*Leptotila verreauxi angelica* Bangs and Penard: Similar to *L. v. fulviventris*, but under parts less buffy, the crissum nearly pure white; neck and chest less vinaceous; forehead more grayish.

Since writing the above, birds from Sonora have been separated, on account of average smaller size and more ashy dorsal coloration with less pronounced iri-

Leptotila fulviventris angelica Bangs and Penard, Proc. New Engl. Zool. Cl., 8, p. 29, 1922—Brownsville, Texas (type in Museum of Comparative Zoology, Cambridge, Mass.); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 9, 1927—San Blas, Nayarit, Mexico; Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 387, 1928—Amloloya, Oaxaca.

Leptotila brachyptera Salvadori, Cat. Bds. Brit. Mus., 21, p. 545, 1893—part, spec. c-c', t', w'-f'', Texas (Brownsville, Hidalgo), Nuevo León (Rio Salado, Monterey, Hacienda de los Escobas, Pesqueria Grande, Rio de la Gilla, Montemorelas), Tamaulipas (Sota la Marina, Aldama, Tampico), Sonora, Tepic (San Blas, Santiago), Jalisco (Lake Chapala, Beltran), Colima (Santiago), Guerrero (Acapulco), Oaxaca (San Juan, Tehuantepec), and Chiapas (Tonalá); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 257, 1902—part, same localities.

Leptotila fulviventris brachyptera Nelson, N. Amer. Faun., 14, p. 36, 1899—Tres Marias Islands (one spec. by Grayson in U. S. National Museum); Miller, Bull. Amer. Mus. N. H., 21, p. 343, 1905—Escuinapa, Juan Lisiaraga Mountains, and Juanna Gomez Creek, southern Sinaloa; Phillips, Auk, 28, p. 75, 1911—Rio Cruz, Tamaulipas; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 453, 1916—part, southern Texas and Mexico (excepting Vera Cruz) (monog., full bibliog.); Griscom and Crosby, Auk, 42, p. 533, 1925—Brownsville, Texas; Friedmann, l.c., p. 544, 1925—lower Rio Grande Valley, Texas.

Leptotila verreauxi angelica van Rossem, Trans. San Diego Soc. N. H., 6, p. 249, 1931—San Javier, Sonora; idem, Bull. Mus. Comp. Zool., 77, p. 435, 1934—Sonora (Alamos, Hacienda de San Rafael) and Chihuahua (Durazno, Carmen); Griscom, l.c., 75, p. 372, 1934—Chilpancingo, Guerrero; Peters, Bds. World, 3, p. 122, 1937 (range).

Range.—Lower Rio Grande Valley, Texas, and southwards over the greater part of Mexico to Tamaulipas, Hidalgo, Puebla, Oaxaca, and western Chiapas (Tonalá, Tuxtla Gutierrez); (?)accidental on the Tres Marias Islands.¹

Field Museum Collection.—9: Texas (Cameron County, 1; Brownsville, Cameron County, 1; Lometa Ranch, Lampasas County, 1); Mexico (Tampico, Tamaulipas, 2; Igualá, Guerrero, 1; Apiphiluco, Guerrero, 3).

Conover Collection.—13: Texas (Brownsville, Cameron County, 3); Mexico (Micos, San Luis Potosí, 1; Chinobampo, Sonora, 1; Guirocoba, Sonora, 3; Tecoripa, Sonora, 3; Sabinas, Coahuila, 1; Mazatlan, Sinaloa, 1).

descent on nape and hind neck, as *L. v. santiago* by van Rossem (Proc. Biol. Soc. Wash., 50, p. 199, 1937—type, from Guirocoba, Sonora, in coll. of D. R. Dickey, now in the University of California at Los Angeles).

¹ A single example said to have been collected by Grayson is in the U. S. National Museum. The record appears to be open to doubt.

Leptotila verreauxi capitalis Nelson. TRES MARIAS WHITE-FRONTED DOVE.

Leptotila capitalis Nelson, Proc. Biol. Soc. Wash., 12, p. 6, 1898—María Madre Island, Tres Marias group, western Mexico (type in U. S. National Museum); idem, N. Amer. Faun., 14, p. 36, 1899—María Madre and María Magdalena Islands (habits).

Leptoptila albifrons (not of Bonaparte) Grayson, Proc. Bost. Soc. N. H., 14, p. 274, 1871—Tres Marias (habits); Lawrence, Mem. Bost. Soc. N. H., 2, p. 305, 1874—part, Tres Marias.

Leptoptila brachyptera Salvadori, Cat. Bds. Brit. Mus., 21, p. 545, 1893—part, spec. u', v', Tres Marias.

Leptotila capitalis Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 259, 1902—Tres Marias Islands.

Leptotila fulviventris capitalis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 456, 1916—Tres Marias (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 295, 1926—María Madre and María Magdalena; idem, l.c., (4), 16, p. 9, 1927—María Madre.

Leptotila verreauxi capitalis Peters, Bds. World, 3, p. 122, 1937 (range).

Range.—Tres Marias Islands (María Madre and María Magdalena), off western Mexico.

***Leptotila verreauxi fulviventris** (Lawrence). BUFF-BELLIED WHITE-FRONTED DOVE.

Leptoptila fulviventris Lawrence, Ann. N. Y. Acad. Sci., 2, p. 287, 1882—Yucatan (type in State University of Kansas); Boucard, Proc. Zool. Soc. Lond., 1883, p. 435—Yucatan (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 259, 1902—Yucatan (Buctzotz, Izamal, Tizimin, Mérida).

Leptoptila albifrons (not of Bonaparte) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 207, 1869—Mérida, Yucatan; Boucard, Proc. Zool. Soc. Lond., 1883, p. 459—Yucatan (crit., habits).

Engyptila vinaceifulva Lawrence, Ann. N. Y. Acad. Sci., 4, p. 271, 1885—Temax, Yucatan (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York; =albinistic variety).

Engyptila fulviventris Lawrence, Ann. N. Y. Acad. Sci., 4, p. 272, 1885—Yucatan (crit.).

Leptoptila brachyptera Salvadori,¹ Cat. Bds. Brit. Mus., 21, p. 545, 1893—part, spec. a, b, d'-s', g'-n', Mexico, Vera Cruz (Misantla, Coatepec, Atoyac, Jalapa, Vega del Casadero, Playa Vicente, Sochiapa), Tabasco (Teapa), Yucatan (Mérida, Tizimin, Izamal, Buctzotz), (type from "Mexico" in British Museum);² Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 257, 1902—part, same localities.

¹ *Peristera brachyptera* G. R. Gray (List Spec. Bds. Brit. Mus., 4, p. 54, 1856) is a nomen nudum.

² The type proved to be a specimen of *L. fulviventris*, making *L. brachyptera* a synonym.

Leptotila fulviventris brachyptera Chapman, Bull. Amer. Mus. N. H., 8, p. 287, 1896—Chichen-Itzá, Yucatan; idem, l.c., 10, p. 35, 1898—Jalapa, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 453, 1916—part, Vera Cruz to Yucatan, northern Chiapas, and Atlantic Guatemala.

Leptotila fulviventris fulviventris Cole, Bull. Mus. Comp. Zool., 50, p. 118, 1906—Chichen-Itzá, Yucatan; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 451, 1916—Yucatan, Tabasco (Montecristo, Teapa), Campeche, eastern Vera Cruz, northern Chiapas (Huehuetan, Teopisca), northern Guatemala (Toyabaj, Quiché), and British Honduras (near Manatee Lagoon) (monog.).

Leptotila verreauxi fulviventris Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Flores and Pacomón, Petén, Guatemala; Peters, Bds. World, 3, p. 122, 1937 (range).

Range.—Tropical zone of southeastern Mexico, from Vera Cruz through Tabasco, Campeche, and Yucatan to northern Chiapas (Huehuetan, Teopisca), British Honduras, and northeastern Guatemala (Petén, Alta Verapaz).¹

Field Museum Collection.—6: Mexico (Matamoros, Campeche, 1; Pacaitun, Campeche, 1; Chichen-Itzá, Yucatan, 2; unspecified, Yucatan, 2).

Conover Collection.—3: Mexico (Tutla, Oaxaca, 3).

****Leptotila verreauxi bangsi* Dickey and van Rossem.² BANGS'S WHITE-FRONTED DOVE.**

Leptotila fulviventris bangsi Dickey and van Rossem, Proc. Biol. Soc. Wash., 39, p. 110, 1926—Volcan San Miguel, El Salvador (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 306, 1932—Cantarranas, Honduras.

Leptotila brachyptera Salvadori, Cat. Bds. Brit. Mus., 21, p. 545, 1893—part, spec. o"-t", u"-z", Guatemala (Dueñas, San Gerónimo, Barranco Hondo, Toliman, Panajachel, Retalhuleu), Salvador (La Libertad), and Nicaragua (El Volcan, Chinandega); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 257, 1902—part, same localities.

Leptotila fulviventris brachyptera Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 79, 1907—Los Amates, Gualán, Lake Amatitlán, Lake Atitlán, Tecpam, Patulul and San José, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 453, 1916—part, Guatemala (Retalhuleu, Patulul, San José), Salvador (La Libertad), Honduras, and Nicaragua (Matagalpa, Chinandega).

¹ Birds from Alta Verapaz and Petén agree with Yucatan specimens. Those from interior Guatemala (eastern slope of the Pacific Cordillera) are just as variously intermediate to *L. v. bangsi* as are those from northern Vera Cruz to *L. v. angelica*.

² *Leptotila verreauxi bangsi* Dickey and van Rossem: Near to *L. v. fulviventris*, but forehead much lighter, and under parts paler, less ochraceous; similar also to *L. v. angelica*, but upper parts warmer brown, less grayish, and the vinaceous color of head and chest brighter.

Leptotila verreauxi bangsi Griscom, Bull. Amer. Mus. N. H., 64, p. 117, 1932—Pacific coast of Guatemala (Ocos, Hacienda California, La Carolina, Finca El Cipres) (crit.); Peters, Bds. World, 3, p. 122, 1937 (range); Dickey and van Rossem, Field Mus. Nat. Hist., Zool. Ser., 23, p. 197, 1938—Lake Olomega, Rio San Miguel, Puerto del Triunfo, Divisadero, San Salvador, Lake Chanmico, and Lake Guija, El Salvador.

Leptotila verreauxi fulviventris Griscom, Bull. Amer. Mus. N. H., 64, p. 117, 1932—Chichicastenango, Finca La Primavera, Sacapulas, and Progreso, Guatemala (crit.); Carriker and de Schauensee, Proc. Acad. Nat. Sci. Phila., 87, p. 414, 1935—Gualan and Quiriguá, Guatemala.

Range.—Guatemala (except Petén and Alta Verapaz), El Salvador, western Honduras (Tegucigalpa), and northern Nicaragua (depts. Chinandega and Matagalpa).

Field Museum Collection.—19: Guatemala (Lake Amatitlan, Amatitlan, 1; near Tecpam, Chimaltenango, 1; San José, Escuintla, 1; Patulul, Sololá, 5; Lake Atitlan, Sololá, 1; Los Amates, Yzabal, 1; Gualan, Zacapa, 1); El Salvador (Laguna Olomega, 2; Volcan Conchagua, La Unión, 1; El Tablón, Santa Ana, 1; Sitio del Niño, San Salvador, 1); Nicaragua (San Rafael del Norte, Jinotega, 1; San Gerónimo, Chinandega, 2).

Conover Collection.—8: Guatemala (San Augustine, Zacapa, 1); Honduras (Comayaguela, Tegucigalpa, 1; Monte Redondo, near Archaga, Tegucigalpa, 6).

***Leptotila verreauxi nuttingi* Ridgway.¹ OMETÉPE WHITE-FRONTED DOVE.**

Leptotila verreauxi nuttingi Ridgway, Proc. Biol. Soc. Wash., 28, p. 107, 1915—Ometépe, Nicaragua (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 7, p. 450, 1916—western shore of Lake Nicaragua (Sucuyá) and Isla Ometépe (monog.); Rendahl, Ark. Zool., 12, No. 8, p. 14, 1919—Ometépe, Nicaragua; Peters, Bds. World, 3, p. 123, 1937 (range).

Engyptila verreauxi (not *Leptotila verreauxi* Bonaparte) Nutting, Proc. U. S. Nat. Mus., 6, pp. 389, 396, 1883—Sucuyá and Ometépe, Nicaragua.

Range.—Western shore of Lake Nicaragua (Sucuyá) and Ometépe Island, in Lake Nicaragua.

***Leptotila verreauxi riottei* (Lawrence).² RIOTTE'S WHITE-FRONTED DOVE.**

¹ *Leptotila verreauxi nuttingi* Ridgway, in the extent of rufous on the inner webs of the remiges, is so decidedly intermediate between the northern *fulviventris* group and the southern *verreauxi* that Griscom is no doubt correct in uniting them in a single specific entity.

A single adult male from Ometépe examined.

² *Leptotila verreauxi riottei* (Lawrence) requires substantiation by an adequate series. The type and only specimen examined is stated by Ridgway to differ by

Leptoptila riottei Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 137, 1868—Navárrro, Costa Rica (type in U. S. National Museum); Frantzius, Journ. Orn., 17, p. 371, 1869—Costa Rica.

Leptoptila riottii Salvin, Ibis, 1874, p. 312 (crit.).

Leptoptila verreauxi (not of Bonaparte) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 260, 1902—part, Navárrro and Bellavista, Costa Rica.

Leptotila verreauxi riottei Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 450, 1916—Caribbean Costa Rica (monog.); Peters, Bds. World, 3, p. 123, 1937 (range).

Range.—Caribbean Costa Rica (Navárrro, Bellavista).

****Leptotila verreauxi decolor* (Salvin).¹ SALVIN'S WHITE-FRONTED DOVE.**

Leptoptila decolor Salvin, Nov. Zool., 2, p. 21, 1895—Cajabamba, Viña, and Chusgon (Huamachuco), northern Peru (type now in the British Museum).

Leptoptila verreauxi (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 27, p. 147, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 289, 1860—Babahoyo, Ecuador; Berlepsch and Taczanowski, l.c., 1884, p. 311—Pedregal and Cayanded, Ecuador; Taczanowski, Orn. Pér., 3, p. 256, 1886—Callacate and Cutervo, Peru; Salvadori, Cat. Bds. Brit. Mus., 21, p. 548, 1893—part, spec. t-w, Ecuador (Pallatanga, Santa Rita); Hartert, Nov. Zool., 5, p. 503, 1898—Lake Yaguarcocha, Ecuador, and Cali, Colombia (crit.); Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 36, 1900—La Concepción (Chota Valley), Tumbaco, Vines, and Balzar, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., p. B. 7, 1911—Lanlin and Nanegal, Ecuador.

Leptoptila rufaxilla (not *Columba rufaxilla* Richard and Bernard) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 212—Cutervo, Peru (descr.).

Leptotila verreauxi Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 356, 1927—Valle de San Pedro Tingo, Ecuador.

Leptoptila verreauxi verreauxi Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 621, 1932—El Portete de Tarquí, Loja, Ecuador.

Leptotila verreauxi occidentalis Chapman, Bull. Amer. Mus. N. H., 31, p. 142, 1912—San Antonio, western Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 211, 1917—Caldas (Rio Dagua), San Antonio, Gallera, Cerro Munchique, Miraflores, and Salento, Colombia.

Leptotila verreauxi occidentalis Lönnberg and Rendahl, Ark. Zool., 14, No. 26, p. 18, 1922—Cumbaya, below Nono, road to Gualaea, and road to Nanegal, Ecuador.

much darker brown upper parts, and cinnamon-drab to fawn color on foreneck and chest. It is strange that no other examples have recently been collected on the Caribbean side, since this dove is otherwise common wherever it occurs.

¹ *Leptotila verreauxi decolor* (Salvin): Similar to *L. v. verreauxi*, but upper parts much grayer; forehead whiter; metallic reflections of crown much less pronounced; under parts paler vinaceous with the flanks more grayish.

Chapman has shown that the birds of the above-circumscribed area, although they exhibit some zonal variation, are best regarded as a single taxonomic entity.

Leptoptila verreauxi decolor Chubb, Ibis, 1919, p. 46—Ecuador (Puná Island; Loja) and Peru (Piura) (crit.).

Leptotila decolor Bangs and Noble, Auk, 35, p. 447, 1918—Bellavista (Rio Marañón) and Huancabamba, Peru.

Leptotila verreauxi decolor Chapman, Bull. Amer. Mus. N. H., 55, p. 168, 1926—Esmeraldas, Chone, Puná Island, Chongoncito, Duran, Naránjo, Daule, Pallatanga, Celica, Guachanamá, Casanga, Santa Rosa, Zaruma, Rio Pindo, Portovelo, Lunamá, Guainche, Huigra, Bucay, Chunchi, Cum-baya, Mount Pichincha, Guailabamba, Tumbaco, and Yaguarcocha, Ecuador (crit.); Sztolerman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 202, 1926—Yaguachi, Ecuador (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 258, 1930—Cullcui, Marañón River, Peru (crit.); Peters, Bds. World, 3, p. 123, 1937 (range).

Range.—Tropical to Temperate zones of western Colombia (western Andes and west slope of central Andes), western and central Ecuador, and northern Peru, from the coast to the upper Marañón Valley.

Field Museum Collection.—9: Colombia (San Antonio, Valle de Cauca, 1); Peru (Hacienda Limón, Cajamarca, 5; Cullcui, Huánuco, 1; Hacienda Llagueda, Libertad, 1; Menocucho, Libertad, 1).

Conover Collection.—32: Colombia (Munchique, El Tambo, 6); Ecuador (Chongon, Guayas, 2; Valle de Rojas, 2; Rio Chichi, 5; Isla Silva, Sur, Province de los Rios, 2; Rio San Antonio, Province de los Rios, 1; La Palma, Province de los Rios, 1; Puente de Chimbo, 1; Balzapamba, Bolívar, 6; Nono, near Quito, 2; Piños, El Oro, 1; Zaruma, El Oro, 1; Malacatos, Loja, 1); Peru (Cullcui, Huánuco, 1).

****Leptotila verreauxi verreauxi* (Bonaparte). VERREAUX'S WHITE-FRONTED DOVE.**

Leptoptila verreauxi Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 99,¹ for Jan. 15, 1855—"Nouvelle Grenade"; idem, Consp. Gen. Av., 2, sig. 10, Dec. 5, 1854, p. 73, "April 15, 1855" [=1857]—"Nova Granata" (full descr.; type in coll. of C. L. Bonaparte, now in Paris Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 333, 1862—Panama Railroad; Salvin, Proc. Zool. Soc. Lond., 1867, p. 159—Santa Fé, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 137, 1868—Costa Rica (San José, Barranca, Dota); Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Calóbre, Veraguas, and Bugaba, Chiriquí; Sclater and Salvin, l.c., p. 782—Mérida, Venezuela; Boucard, l.c., 1878, p. 43—San José, Costa Rica; Sclater and Salvin, l.c., 1879, p. 544—Retiro and Medellín, Colombia; Salvin and Godman, Ibis, 1880, p. 178—Minca, Colombia; Salvadori, Cat. Bds. Brit. Mus., 21, p. 549, 1893—part, spec. a-n, Costa Rica (San José), Panama (Santa Fé, Cordillera de Tolé, Bugaba, Lion Hill), Colombia (Medellin,

¹ Hardly more than a nomen nudum here, but fully described in "Conspectus Generum Avium" a few years later.

- Minca), Venezuela (Puerto Cabello), and Trinidad; Hartert, Ibis, 1893, pp. 305, 324, 334—Aruba, Curaçao, and Bonaire; Underwood, Ibis, 1896, p. 447—Volcan de Miravalles, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 260, 1902—Costa Rica (excepting Navarro and Bellavista) and Panama; Bangs, Proc. New Engl. Zool. Cl., 3, p. 23, 1902—Bugaba, Panama; idem, Auk, 24, p. 292, 1907—Costa Rica (Boruca, Paso Real, El Pózo de Térraba); Lowe, Ibis, 1907, p. 552—Margarita Island, Venezuela (crit.); Beebe, Zoologica (N.Y.), 1, p. 73, 1909—Caño Guanoco, Orinoco Delta, Venezuela.
- Leptotila verreauxi* Wyatt, Ibis, 1871, p. 383—Ocaña, Colombia; Bangs, Proc. Biol. Soc. Wash., 12, p. 132, 1898—Santa Marta, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 128, 1900—Bonda, Colombia; Bangs, Auk, 18, pp. 25, 358, 1901—San Miguel Island and Divalá, Panama; Berlepsch and Hartert, Nov. Zool., 9, p. 118, 1902—Altagracia and Caicara, Orinoco, Venezuela (crit.); Allen, Bull. Amer. Mus. N. H., 21, p. 279, 1905—Bonda, Colombia (nest and eggs descr.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 148, 1905—San Miguel and Saboga Islands (crit.); idem, l.c., p. 214, 1906—savanna of Panama; Hellmayr, Nov. Zool., 13, p. 47, 1906—Laventille and Pointe Gourde, Trinidad (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 370, 1908—Carenage, Trinidad; Bangs, Proc. Biol. Soc. Wash., 22, p. 30, 1909—Bolson, Costa Rica; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 198, 210, 230, 240, 1909—Aruba, Bonaire, Los Testigos, and Margarita Island (crit.); Carriker, Ann. Carnegie Mus., 6, p. 401, 1910—Costa Rica (Pígres, San José, Bebedero, Pózo Azul, Bolson, Miravalles, San Mateo, El Pózo de Térraba, Boruca, Buenos Aires); Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 160, 1912—Cumbre Chiquita (San Esteban), Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 352, 1916—Orinoco Valley, Venezuela (nest and eggs); Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 37, 1922—Altagracia, Lagunillas, Rio Cogollo, Valera, Rio Chamá, Encontrados, and Rio Aurare, Zulia, Venezuela.
- Peristera verreauxi* Léotaud, Ois. Trinidad, p. 369, 1866—Trinidad.
- Engyptila verreauxi* Nutting, Proc. U. S. Nat. Mus., 5, p. 408, 1882—La Palma de Nicoya, Costa Rica; idem, l.c., 6, p. 378, 1883—San Juan del Sur, Nicaragua; Ridgway, l.c., 5, pp. 498, 502, 1883—Volcan de Irazú and San José, Costa Rica; idem, l.c., 7, p. 173, 1884—Trinidad; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Costa Rica (Las Trojas, San Mateo, San José, Cartago); Cherrie, Auk, 9, p. 329, 1892—San José, Costa Rica; idem, Anal. Inst. Fís.-Geog. Mus. Nac. Costa Rica, 4, p. 146, 1893—Lagarto, Costa Rica; Chapman, Bull. Amer. Mus. N. H., 6, p. 74, 1894—near Princetown, Trinidad, and Monos Island.
- Leptopila jamaicensis* (not *Columba jamaicensis* Linnaeus) Schlegel, Mus. Pays-Bas, 4, No. 35, p. 158, 1873—part, spec. Nos. 3-5, Bogotá and Venezuela (Caracas).
- Leptotila insularis* Richmond, Proc. U. S. Nat. Mus., 18, p. 659, 1896—Margarita Island, Venezuela (type in U. S. National Museum); Clark, Auk, 19, p. 261, 1902—Margarita Island.
- Leptotila verreauxi insularis* Hartert, Nov. Zool., 9, p. 305, 1902—Aruba, Bonaire, and Curaçao (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 191, 1913—Cariaquito, Paria Peninsula, Venezuela.

Leptotila verreauxi verreauxi Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 446, 1916 (monog., full bibliog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 210, 1917—Colombia (La Candela, Andalucia, El Carmen, El Alto de la Paz, Chicoral, Honda, Remolino, Algodonal, Calamar, La Playa, Rio Sinú, Puerto Valdivia, Peque); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 243, 1918—Gatún and Mindi, Panama; Rendahl, Ark. Zool., 13, No. 4, p. 30, 1921—Casaya and Bayoneta Islands, Pearl Islands; Todd and Carriker, Ann. Carnegie Mus., 14, p. 191, 1922—Bonda, Don Diego, Minca, Santa Marta, and La Tigra, Colombia (crit.); Hallinan, Auk, 41, p. 311, 1924—Panama (Sosa Hill, Farfan, near Corozal, Gorgona); Darlington, Bull. Mus. Comp. Zool., 71, p. 377, 1931—Rio Frio, Magdalena, Colombia; Roberts, Trop. Agric., 11, p. 92, 1934—Trinidad; Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Panama; Belcher and Smooker, Ibis, 1936, p. 6—part, Trinidad (Caroni region, islets west of Port of Spain, and "Bocas" from Gasparée west to Patos; nest and eggs descr.); Peters, Bds. World, 3, p. 123, 1937 (range).

Leptotila verreauxi verreauxi, *L. v. riottei*, and *L. v. insularis* Chubb, Ibis, 1919, pp. 44, 45—Colombia, Venezuela, Costa Rica, Panama and Margarita Island.

*Leptotila verreauxi brevipennis*¹ Chubb, Ibis, (11), 1, p. 45, 1919—Trinidad (type in British Museum).

Leptotila verreauxi zapluta Peters, Bds. World, 3, p. 123, 1937—new name for *Leptotila verreauxi brevipennis* Chubb.

Engyptila erythrorhox (not *Columba erythrorhox* Temminck) Phelps, Auk, 14, p. 366, 1897—Cumanacoa and San Antonio [Bermúdez], Venezuela.

Range.—Extreme southwestern corner of Nicaragua (San Juan del Sur) and southward through Pacific Costa Rica and Panama to northern and eastern Colombia (from the lower Atrato east to Santa Marta and south through the entire Magdalena Valley) and northern Venezuela east to the Paria Peninsula and Margarita Island, south to the Orinoco; islands of Aruba, Curaçao, Bonaire, Los Testigos, and Trinidad.²

Field Museum Collection.—35: Dutch West Indies (Aruba, 3; Bonaire, 3); Costa Rica (Lagarto, Puntarenas, 2; Buenos Aires, Puntarenas, 3; Boruca, Puntarenas, 1; San José, San José, 2);

¹ *Peristera brevipennis* G. R. Gray (List Spec. Bds. Brit. Mus., 4, Columbae, p. 54, 1856) is a nomen nudum.

² We have not succeeded in satisfactorily subdividing the inhabitants of this region, extensive as it is. Birds from Trinidad, Margarita, the Dutch West Indies, and the north coast of Venezuela are precisely alike, *L. brevipennis* thus becoming a pure synonym of *L. insularis*. They are as a rule slightly more richly colored below than a number of Bogotá skins, as has already been noticed by authors, but the divergence is rather insignificant, and hardly sufficiently constant to warrant the recognition of an eastern form (*insularis*). Certain individuals from the Orinoco Valley closely approach *L. v. brasiliensis*, which itself seems to be intermediate to *L. v. approximans*. Birds from Pacific Costa Rica are larger, but until the status of *L. v. riottei* has been clearly determined, it seems unwise to do more than call attention to this fact.

Colombia (Calamar, Bolívar, 1; Puerto Valdivia, Antioquia, 1); Venezuela (Encontrados, Zulia, 4; Rio Aurare, Zulia, 1; Maracay, Aragua, 2; Lake Valencia, Aragua, 1; Margarita Island, Nueva Esparta, 4; Testigos Islands, Nueva Esparta, 3; Mount Turumiquire, Sucre, 2; Cocollar, Sucre, 2).

Conover Collection.—26: Costa Rica (San José, 2; Surubres, 1; Puerto Jiménez, Puntarenas, 3; Las Cañas, 3; Buenos Aires, Puntarenas, 3; Punta Piedra, Guanacaste, 2; Cartago, Cartago, 1); Venezuela (Altagracia, Zulia, 1; Lagunillas, Zulia, 1; Rio Cogollo, Périja, 4; Valera, 2; Rio Chamá, Mérida, 1; Las Mesitas, Trujillo, 2).

****Leptotila verreauxi tobagensis* Hellmayr and Seilern.¹ TOBAGO WHITE-FRONTED DOVE.**

Leptotila verreauxi tobagensis Hellmayr and Seilern, Verh. Orn. Ges. Bay., 12, p. 204, July 25, 1915—Man o' War Bay, Tobago (type in Munich Museum); Peters, Bds. World, 3, p. 123, 1937 (range).

Peristera jamaicensis (not *Columba jamaicensis* Linnaeus) Jardine, Ann. Mag. Nat. Hist., 20, p. 374, 1847—Tobago.

Engyptila verreauxi (not *Leptotila verreauxi* Bonaparte) Cory, Auk, 10, p. 220, 1893—Tobago.

Leptotila verreauxi Dalmas, Mém. Soc. Zool. France, 13, p. 144, 1900—Tobago.

Leptotila verreauxi verreauxi Belcher and Smooker, Ibis, 1936, p. 6—part, Tobago (nest and eggs descr.).

Range.—Island of Tobago.

Field Museum Collection.—2: Tobago (unspecified, 2).

****Leptotila verreauxi brasiliensis* (Bonaparte).² GUIANAN WHITE-FRONTED DOVE.**

¹ *Leptotila verreauxi tobagensis* Hellmayr and Seilern: Similar to the nominate race, but hind neck and nape bronze green with very little, if any, coppery reflections posteriorly; throat more extensively as well as purer white; foreneck, breast, and sides markedly paler, pale grayish vinaceous rather than light grayish vinaceous; white abdominal zone larger; bill on average smaller. Wing, 132–136; tail, 103–109; bill, 16.

Five additional specimens from Tobago (Man o' War Bay) examined.

² *Leptotila verreauxi brasiliensis* (Bonaparte), judging from the few specimens available for study, connects the northern *verreauxi* with the east Brazilian races. Compared with the former, they are darker brown above with the white tips to the rectrices more restricted, while the foreneck and breast are darker, between light cinnamon-drab and vinaceous-fawn. In the restriction of the white tail-tips it resembles *L. v. approximans*, but is darker above, with the forehead more pinkish, and also more deeply vinaceous on foreneck and breast.

The type in the Paris Museum, though not in very good condition, is unquestionably identical with specimens from French Guiana, from which others taken by H. Whitely at Quonga, British Guiana (*macconnelli* Chubb), do not differ at

Peristera brasiliensis Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, No. 20, p. 945, for Nov. 17, 1856—no locality given (type in Paris Museum examined).

Leptotila verreauxi (not of Bonaparte) Berlepsch, Nov. Zool., 15, p. 295, 1908—Cayenne and Roche-Marie, French Guiana; Snethlage, Bol. Mus. Goeldi, 8, p. 66, 1914—Marajó (Dumas), Mexiana, Monte Alegre, and Rio Jamundá (Faro), Brazil.

Leptotila verreauxi Chubb, Bds. Brit. Guiana, 1, p. 48, 1916—Abury River, Aurora Creek, Tiger Creek, Great Falls of Demerara, and Quonga.

Leptotila verreauxi macconnelli Chubb, Bull. Brit. Orn. Cl., 38, p. 32, 1917—British Guiana (type in the British Museum); idem, Ibis, 1919, p. 45—British Guiana (crit.).

Leptotila verreauxi tenella Penard, Proc. New Engl. Zool. Cl., 8, p. 35, 1923—Lelydorp, Surinam (type in Museum of Comparative Zoology, Cambridge, Mass.).

Leptotila verreauxi brasiliensis Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 471 (footnote), 1929 (crit.); Peters, Bds. World, 3, p. 123, 1937 (range).

Leptotila rufaxilla (not *Columba rufaxilla* Richard and Bernard) Pelzelin, Orn. Bras., 3, p. 279, 1870—part, Rio Muriá, Pará (spec. examined).

Range.—British, Dutch and French Guiana, southward to the Amazon Valley and west to the Rio Solimões (Rio Manacapurú).¹

Field Museum Collection.—7: British Guiana (Rockstone, Essequibo River, 3; Buxton, E. C., Demerara, 1); Brazil, Amazonas (Serra Grande, Rio Branco, 1; Boa Vista, Rio Branco, 1; Serra da Lua, near Boa Vista, 1).

Conover Collection.—15: British Guiana (Rockstone, Essequibo River, 2); Brazil (Boca de Channel Piava, near Obidos, 1; Lago Cuipeua, near Obidos, 1; Serraria Cabral, Rio Acará, 2; Ipomonga, Rio Capim, 2; Boim, Rio Tapajóz, 2; Tauary, Rio Tapajóz, 2; Caxiricatuba, Rio Tapajóz, 1; Rio Manacapurú, Amazonas, 2).

****Leptotila verreauxi approximans* (Cory).² CORY'S WHITE-FRONTED DOVE.**

all. It is an adult bird (with the characteristic attenuation of the outermost primary), and has no other locality than "Brésil."

The Parisian specimen is the real type, since it is the one from which Bonaparte drew up his diagnosis, whereas *Peristera brasiliensis* Gray (List Spec. Bds. Brit. Mus., 4, Columbae, p. 54, 1856) is a pure nomen nudum. A female from Marajó (São Natal) and a male from Rio Muriá, east of Pará, obviously pertain to the same form.

¹ *Engyptila erythrorhaz* [sic] Riker and Chapman (Auk, 8, p. 162, 1891—Diamantina, near Santarém, Brazil) may also be referable here.

² *Leptotila verreauxi approximans* (Cory): Similar to *L. v. decipiens*, but smaller, and under parts paler, the foreneck and breast being ecru-drab rather than light cinnamon-drab. Wing, 133–140, rarely to 143; tail, 94–104; bill, 14–17.

This form ranges south into the northern parts of Bahia. Field Museum has two perfectly typical examples from Rio do Peixe, near Queimadas, and an adult

Leptoptila ochroptera approximans Cory, Field Mus. Nat. Hist., Zool. Ser., 12, p. 7, 1917—Serra de Baturité, Ceará, Brazil (type in Field Museum of Natural History).

Leptoptila ochroptera (not of Pelzeln) Forbes, Ibis, 1881, p. 357—Garanhuns, Pernambuco; Salvadori, Cat. Bds. Brit. Mus., 21, p. 555, 1893—part, spec. k, Pernambuco; Reiser, Denks. Math.-Naturw. Kl. Bayr. Akad. Wiss., 76, p. 88, 1910—Bahia (Rio São Francisco, near Sambaiba) and Piahy (Parnaguá, Pedrinha).

Leptoptila ex aff. verreauxi Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 48, 1926—Ceará.

Leptoptila verreauxi (not of Bonaparte) Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 68, 1926—Anil and Tury-assú, Maranhão.

Leptotila verreauxi approximans Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 470, 1929—Maranhão (Tury-assú; São Luiz; Grajahú; Fazenda Inhúma, Alto Parnahyba), Piahy (Arára, Deserto, Ibiapaba, Parnaguá, Pedrinha), and Ceará (Serra de Baturité); Peters, Bds. World, 3, p. 124, 1937 (range).

Range.—Northeastern Brazil, from Maranhão, Piahy, and Ceará south to northern Bahia (Rio do Peixe, near Queimadas; São Marcello, Rio Preto).

Field Museum Collection.—7: Brazil (Rio do Peixe, near Queimadas, Bahia, 2; São Marcello, Bahia, 2; São Luiz, Maranhão, 1; Tury-assú, Maranhão, 1; Serra de Baturité, Ceará, 1).

Conover Collection.—7: Brazil (Grajahú, Maranhão, 1; Fazenda Inhúma, Alto Parnahyba, Maranhão, 3; Deserto, Piahy, 1; Arára, Piahy, 1; Ibiapaba, Piahy, 1).

****Leptotila verreauxi decipiens* (Salvadori). CINNAMON-WINGED WHITE-FRONTED DOVE.**

Homoptila decipiens Salvadori, Atti R. Accad. Sci. Torino, 6, p. 131, 1871—Brazil (cotypes in Turin Museum and in coll. of E. Turati, the latter now in Milan Museum).

Leptoptila ochroptera (Natterer MS.) Pelzeln, Orn. Bras., 3, p. 278, 1870—sine descr., part; Rio de Janeiro (Sapitiba) and São Paulo (Mattodentro, Ypanemá); Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 17—Huiro and Potrero, Urubamba, Peru; Taczanowski, Orn. Pér., 3, p. 255, 1886—Peru (Potrero, Huiro); Salvadori, Cat. Bds. Brit. Mus., 21, p. 555, 1893—part, spec. a-i, 1, m, Brazil (Sapitiba, Bahia, Chapada, Corumbá);

female from São Marcello, Rio Preto; whereas an adult male from the latter locality, in size (wing, 143) and coloration, closely approaches the larger, darker southern form, long known as *L. ochroptera*.

Additional material examined.—Bahia, island near Sambaiba, Rio São Francisco, 1.—Piahy: Parnaguá, 1; Pedrinha, 1.

¹ About the name *L. ochroptera*, cf. Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 472 (footnote 1), 1929.

- idem, Boll. Mus. Zool. Torino, 10, No. 208, p. 23, 1895—Colonia Risso, Rio Apa, Paraguay; idem, l.c., 15, No. 378, p. 5, 1900—Urucúm, Matto Grosso; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—La Merced, Chanchamayo, Peru; idem, Ornith., 13, p. 100, 1906—Santa Ana, Urubamba, Peru; Bertoni, Faun. Parag., p. 36, 1914—Alto Paraná, Paraguay; Ménégaux, Rev. Franc. d'Orn., 1917, p. 25—Poconé, Matto Grosso.
- Peristera frontalis* (not *Columba frontalis* Temminck) Burmeister, Journ. Orn., 8, p. 259, 1860—Paraná and Tucumán; idem, Reise La Plata St., 2, p. 497, 1861—same localities.
- Peristera rufaxilla* (not *Columba rufaxilla* Richard and Bernard) Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, pp. 57, 454—São Paulo (Mugy, Hytú, Campinas) and Minas Geraes (Lagôa Santa, Sete Lagôas, Curvelo).
- Engyptila erythrorhox* (not *Columba erythrorhox* Temminck) Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso.
- Engyptila chalcauthenia* [sic] Boucard and Berlepsch, The Humming Bird, 2, p. 41, 1892—"Porto Real," Rio de Janeiro.
- Leptoptila chalcauchenia* (not of Sclater and Salvin) Salvin, Ibis, 1880, p. 363—Salta.
- Engyptila chalcauchenia* Sclater and Hudson, Arg. Orn., 2, p. 144, 1889—Argentina (part; habits); Frenzel, Journ. Orn., 39, p. 123, 1891—Córdoba; Kerr, Ibis, 1892, p. 147—Rio Pilcomayo, Chaco.
- Leptoptila megalura* (not of Sclater and Salvin) White, Proc. Zool. Soc. Lond., 1882, p. 626—Salta (Orán) and Catamarca (Guayan, Andalgalá).
- Leptoptila frontalis chalcauchenia* Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 403, 1890—Córdoba.
- Leptoptila verreauxi* (not of Bonaparte) Salvadori, Cat. Bds. Brit. Mus., 21, p. 548, 1893—part, spec. x, Huiro, Peru.
- Leptoptila chlor(o)auchenia* (not Giglioli and Salvadori) Salvadori, Cat. Bds. Brit. Mus., 21, p. 554, 1893—part, spec. b, d, Córdoba (Cosquin) and Salta; idem, Boll. Mus. Zool. Torino, 10, No. 208, p. 23, 1895—Santa Rosa, Salta; idem, l.c., 12, No. 292, p. 33, 1897—Caiza, Tarija, Bolivia; Ihering, Rev. Mus. Paul., 3, p. 403, 1899—Cachoeira and São Sebastião, São Paulo; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 217, 1902—San Pablo, Yerba-buena, Tafi Viejo, and Siambón, Tucumán; Baer, Ornith., 12, p. 233, 1904—Tapia, Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 249, 1904—Orán and Rosario de Lerma, Salta; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 71, 1905—Tucumán localities; Chubb, Ibis, 1910, p. 63—Sapucay, Paraguay; Grant, Ibis, 1911, p. 460—part, Porto Martinho, north of Rio Apa, Matto Grosso.
- Leptotila ochroptera* Ihering, Cat. Faun. Braz., 1, p. 24, 1907—Cachoeira and São Sebastião, São Paulo.
- Leptotila ochroptera ochroptera* Hellmayr, Nov. Zool., 15, p. 93, 1908—Goyáz and Rio Araguaya, Goyáz (crit.); Chapman, Bull. U. S. Nat. Mus., 117, p. 47, 1921—Santa Ana, Idma, San Miguel Bridge, Matchu Picchu, and Torontoy, Urubamba, Peru (crit.); Wetmore, l.c., 133, p. 174, 1926—Chaco Formosano.

Leptotila chlorauchenia chlorauchenia Hartert and Venturi, Nov. Zool., 16, p. 262, 1909—part, Tapia, Tucumán.

Leptotila ochroptera chlorauchenia Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 194, 410, 1910—Argentina (in part); Giacomelli, El Hornero, 3, p. 81, 1923—La Rioja; Friedmann, Bull. Mus. Comp. Zool., 68, p. 170, 1927—Bovril Islands, Santa Fé; Castellanos, El Hornero, 4, p. 370, 1931—Valle de los Reartes, Córdoba.

Leptotila intermedia Chubb, Bull. Brit. Orn. Cl., 38, p. 17, 1917—"Central South Peru" (type, from Huiro, Urubamba, in British Museum examined).

L[eptotila] v[erreauxi] bolivianus Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 447, 1916 (no locality or type indicated).

Leptotila ochroptera kalinowskii Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 201, Dec. 31, 1926—Santa Ana, Urubamba, Peru (type in Warsaw Museum).

Leptotila verreauxi decipiens Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 258, 1930—Chinchao and Vista Alegre, Huánuco, Peru (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 71, 1930—Tapirapoan, Matto Grosso; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 89, 1930—Formosa (Tapikiolé, San José, Chaves) and Bolivia (Santa Cruz) (crit.); Pinto, Rev. Mus. Paul., 17, (2), p. 710, 1932—São Paulo (Valparaizo) and Matto Grosso (Sant' Anna do Paranahyba, Aquidauana); Stone and Roberts, Proc. Acad. Nat. Sci. Phila., 86, p. 377, 1934—Descalvados, Matto Grosso; Peters, Bds. World, 3, p. 124, 1937 (range).

Leptotila verreauxi ochroptera Pinto, Rev. Mus. Paul., 19, p. 68, 1935—Rio Gongogy, Corupéba, and Ilha Madre de Deus, Bahia; idem, l.c., 20, p. 40, 1936—Rio das Almas and Rio Meia Ponte, Goyáz.

Range.—Southern Brazil, from southern Bahia (from the Rio Paraguassú southwards), Goyáz, Matto Grosso, and Amazonas (Rio Purús) to São Paulo; Paraguay; northern Argentina, west of the Rio Paraná, south to Santa Fé and Córdoba; eastern Bolivia; eastern Peru (Moyobamba; Chinchao and Vista Alegre, Huánuco; La Merced, Chanchamayo, Junín; Urubamba Valley).¹

¹ Birds from southern Bahia, Minas Geraes, Espirito Santo, and São Paulo agree well, the length of the wing in adult birds varying from 138 to 150 mm., while Paraguayan specimens tend to be slightly larger (wing of six adults, 142, 148, 148, 148, 150, 152). Birds from northwestern Argentina (Tucumán and Formosa) and Bolivia (Santa Cruz) cannot be separated either in size (wing, 142–150), though in coloration they seem to average a little paler. Birds from eastern Peru (Huánuco and Urubamba), which have been separated as *L. intermedia* and *L. o. kalinowskii*, we are unable to distinguish from Brazilian examples, though they possibly are on average smaller (wing, 137–142). A single female from Moyobamba shows some approach to *L. v. verreauxi*.

Quite doubtful is *Leptotila callauchen* Salvadori (Boll. Mus. Zool. Torino, 12, No. 272, p. 33, May 12, 1897—San Lorenzo, Jujuy; type in Turin Museum). It is said to differ from "*L. chlorauchenia*" (of Caiza, Tarija, Bolivia) by having the hind neck "cupreo-amethystina," an exceedingly variable feature, since we find among our series of *decipiens* specimens from the same locality with mainly coppery-red and others with mainly bronze-green gloss on the hind neck. Salvadori gives, however, a much longer wing (163 mm.) for the San Lorenzo birds, this measure-

Field Museum Collection.—9: Brazil (Macaco Secco, Bahia, 2; Urucúm de Corumbá, Matto Grosso, 1; Piraputanga, Matto Grosso, 1; Vaccaria, Matto Grosso, 1; Lagõa Santa, Minas Geraes, 2); Peru (Chinchao, Huánuco, 1; Moyobamba, San Martín, 1).

Conover Collection.—42: Brazil (Veadeiros, near Cavalcanti, Goyáz, 1; Rio São Miguel, Goyáz, 3; Fazenda Cayoá, Rio Paranapanema, São Paulo, 2; Canutama, Rio Purús, Amazonas, 1; Vaccaria, Matto Grosso, 2); Peru (Vista Alegre, Huánuco, 1; Chinchao, Huánuco, 2); Bolivia (Comarapa, Santa Cruz, 4; Aiguile, San Carlos, Santa Cruz, 1; Santa Cruz, Santa Cruz, 2; Rio Surutú, Santa Cruz, 1; Tin-Tin, Cochabamba, 1; Cochabamba, 1); Argentina (Sierra de Santa Barbara, Jujuy, 3; Calilegua, Jujuy, 1; Vipos, Tucumán, 1; Las Palmas, Chaco, 1); Paraguay (Molinasque, 1; Santa Barbara, 1; Itapé, 2; Villa Rica, 1; Horqueta, 4; Paraguay River, east side, 1; Capitan Bado, Cerro Amambay, 4).

****Leptotila verreauxi chlorauchenia* (Giglioli and Salvadori).¹**
GREEN-NAPED WHITE-FRONTED DOVE.

Leptotila chlorauchenia Giglioli and Salvadori, Atti R. Accad. Sci. Torino, 5, p. 274, for "January" 1870 (probably publ. in Feb. or later)*—Estancia Trinidad, near Montevideo, Uruguay (type in Turin Museum); iidem, Ibis, 1870, p. 186 (reprint); Sclater and Salvin, Ibis, 1871, p. 435 (date of publication).

Leptotila chalauchenia (Salvadori MS.) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 633, for Dec., 1869, pub. March, 1870²—Conchitas, Buenos Aires (type in British Museum); Berlepsch, Journ. Orn., 22, p. 243, 1874—Blumenau, Santa Catharina; Durnford, Ibis, 1877, p. 193—Prov. Buenos Aires; Barrows, Auk, 1, p. 275, 1884—Concepción del Uruguay, Entre

ment being about the same as the maximum figure found in *L. v. chlorauchenia*. The senior author having been refused the privilege of examining the type, we have to leave the status of *L. callauchen* an open question.

Additional material examined.—Peru: Huiro, 1; La Merced, 1.—Paraguay: Bernalcué, 3; Villa Concepción, 1.—Bolivia: Santa Cruz, 1.—Argentina: Tapia, 2; Chaco Formosano, 6.—Brazil: Espirito Santo, 1; Sapitiba, Rio de Janeiro, 2; Agua Suja, Minas Geraes, 4; São Francisco, Minas Geraes, 2; São Paulo (various localities), 14; Goyáz, 4.

¹*Leptotila verreauxi chlorauchenia* (Giglioli and Salvadori): Similar to *L. v. decipiens*, but somewhat larger. Wing, 150–164.

Birds from the extreme south of Brazil (Rio Grande do Sul), Entre Ríos, Uruguay, and Buenos Aires have decidedly longer wings, when compared to *decipiens*, the largest measurements (162, 164 mm., resp.) being shown by two adult males from Entre Ríos (La Soledad) and Paraná (Roça Nova, Serra do Mar). Another specimen from Paraná (Jaguairaba) and two from Santa Catharina are exactly intermediate, and might just as well be referred to *decipiens*.

²About the uncertain dates of publication of these names, cf. Peters, El Hornero, 3, p. 200, 1923, and Wetmore, Bull. U. S. Nat. Mus., 133, pp. 176–177, 1926.

- Ríos; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 177, 1885—Taquara, Rio Grande do Sul.
- Leptotila ochroptera* Pelzeln, Orn. Bras., 3, p. 278, 1870—part, Jaguaraíba, Paraná.
- Engyptila chalcauchenia* Sclater and Hudson, Arg. Orn., 2, p. 144, 1889—Argentina (in part); Aplin, Ibis, 1893, p. 202—Uruguay (banks of the Rio Negro, Arroyo Grande, Santa Elena, Saúce); Gibson, Ibis, 1920, p. 37—Cape San Antonio, Buenos Aires.
- Leptotila chloroauchenia* Salvadori, Cat. Bds. Brit. Mus., 21, p. 554, 1893—part, spec. a, c, Buenos Aires (Conchitas, Punta Lara); Ihering, Anuario Est. Rio Grande do Sul, 16, p. 146, 1899—Rio Grande do Sul (Mundo Novo, Pedras Brancas, São Lourenço); Grant, Ibis, 1911, p. 460—part, Goya, Corrientes.
- Leptotila ochroptera chloroauchenia* Hellmayr, Nov. Zool., 15, p. 94 (in text), 1908—Entre Ríos, Argentina, and Roça Nova, Serra do Mar, Paraná, Brazil (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 194, 410, 1910—part, Entre Ríos, Buenos Aires, and Misiones (Santa Ana); Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 461, 492, 1912—Vera Guarany, Paraná; Dabbene, El Hornero, 1, p. 32, 1917—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 11, 1920—Uruguay (Flores, Soriano, Rio Negro, Rocha); Serié and Smyth, l.c., 3, p. 39, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 161, 1923—San Isidro, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 599, 1924—Prov. Buenos Aires.
- Leptotila chloroauchenia chloroauchenia* Hartert and Venturi, Nov. Zool., 16, p. 262, 1909—part, Buenos Aires (Barracas al Sud) and Entre Ríos (La Soledad).
- Leptotila ochroptera ochroptera* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 117, 1926—Paraná (Faz. Concordia, Faz. Firmiano, Invernadinha, Therezina, Candido de Abreu).
- Leptotila ochroptera chlorauchenia* Wetmore, Bull. U. S. Nat. Mus., 133, p. 76, 1926—Uruguay (San Vicente, Lazcano) and Buenos Aires (Los Yngleses) (crit.).
- Leptotila verreauxi chalcauchenia* Peters, Bds. World, 3, p. 124, 1937—part, Uruguay, Paraná, and eastern Argentina.

Range.—Extreme southern Brazil, from Paraná to Rio Grande do Sul; Uruguay; eastern Argentina (in provinces of Misiones, Entre Ríos, Corrientes, and Buenos Aires).

Field Museum Collection.—1: Brazil (Jaguariahyva, Paraná, 1).

Conover Collection.—9: Brazil (Jaguariahyva, Paraná, 1); Uruguay (Soriano, 1); Argentina (Santa Ana, Misiones, 6; Eldorado, Misiones, 1).

Leptotila wellsi (Lawrence). GRENADA DOVE.

Engyptila wellsi Lawrence, Auk, 1, p. 180, 1884—Grenada (type in U. S. National Museum); Cory, Auk, 4, p. 111, 1887—Grenada (ex Lawrence);

idem, Bds. W. Ind., p. 212, 1889—Grenada; idem, Cat. W. Ind. Bds., pp. 97, 134, 1892—Grenada; Clark, Proc. Bost. Soc. N. H., 32, p. 262, 1905—Grenada and islets off the coast.

Leptoptila wellsi Salvadori, Cat. Bds. Brit. Mus., 21, p. 559, 1893—Grenada.

Leptotila wellsi Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 461, 1916 (monog.); Peters, Bds. World, 3, p. 127, 1937 (range); Bond, Not. Nat. Acad. Nat. Sci. Phila., 13, p. 2, 1939—St. Vincent (Sept. 9, 1891) and probably Tobago.

Range.—Islands of Grenada (including islets off the coast) and St. Vincent, Lesser Antilles; possibly also Tobago.

****Leptotila megalura megalura* (Sclater and Salvin).¹ LONG-TAILED DOVE.**

Leptotila megalura Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 640, pub. March, 1880—Tilotilo, Yungas of La Paz, Bolivia (type in Salvin-Godman Collection, now in the British Museum); Salvadori, Cat. Bds. Brit. Mus., 21, p. 556, pl. 13, 1893—Tilotilo; Chubb, Ibis, 1919, p. 46—Chulumani, Bolivia.

(?) *Leptotila rufaxilla* Allen, Bull. Mus. Comp. Zool., 3, p. 355, 1876—Coroico, La Paz, Bolivia.

Leptotila megalura megalura Peters, Bds. World, 3, p. 125, 1937 (range).

Range.—Subtropical zone of Bolivia (Tilotilo, Omeja, and Chulumani, Yungas of La Paz; Sicasica).

Conover Collection.—4: Bolivia (Comarapa, Santa Cruz, 3; Pocona, Cochabamba, 1).

****Leptotila megalura saturata* (Salvadori).² ARGENTINE LONG-TAILED DOVE.**

Leptotila saturata Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 33, May 12, 1897—San Lorenzo, Jujuy, and Cara-huassi, Salta, Argentina

¹ *Leptotila megalura megalura* (Sclater and Salvin), in general coloration is not unlike *L. v. decipiens*, but differs by having the ground color of the occiput and hind crown dull vinous brown (instead of grayish); amethystine (not bronze green or coppery) gloss on hind crown, nape, and anterior mantle; much paler, more grayish-pink sides of head and neck; and more extensively as well as more purely white throat. From *L. r. reichenbachii* it is easily distinguished by lacking the clear lavender-gray fore-crown and white forehead; and by having a much duller, less vinaceous hind crown and nape; more bluish gloss on hind neck and upper back; absence of the light pinkish cinnamon color on the sides of the head and neck; ecru-drab instead of vinaceous-fawn foreneck and breast, etc.

The relationship of this dove, which, according to Dabbene (in litt.), in north-western Argentina lives side by side with *L. v. decipiens*, is not quite clear, and needs further investigation.

Additional material examined.—Bolivia: Omeja, 1; Sicasica, 1.

² *Leptotila megalura saturata* (Salvadori) differs from *L. m. megalura*, of Bolivia, by browner (less olivaceous) dorsal surface (particularly the tail), more reddish hind neck and mantle, less extensively whitish forehead, and darker chest and sides.

Additional material examined.—Argentina: Salta, 2; Tapia, Tucumán, 1.

(type, from San Lorenzo, Jujuy, in Turin Museum); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 194, 1910 (same localities).

Leptotila megalura saturata Peters, Bds. World, 3, p. 125, 1937 (range).

Range.—Argentina, in provinces of Jujuy (San Lorenzo), Salta (Salta; Cara-huassi), and Tucumán (Tapia; Concepción).

Field Museum Collection.—1: Argentina (Concepción, Tucumán, 1).

Conover Collection.—13: Argentina (Tapia, Tucumán, 1; Concepción, Tucumán, 11; Jujuy, 1).

****Leptotila plumbeiceps plumbeiceps* (Sclater and Salvin).¹**

BONAPARTE'S GRAY-HEADED DOVE.

Leptotila plumbeiceps Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 59, pub. June 1, 1868—[Choctum], Vera Paz, Guatemala (type in Salvin-Godman Collection, now in British Museum); *idem*, l.c., 1870, p. 838—[San Pedro], Honduras; Salvadori, Cat. Bds. Brit. Mus., 21, p. 550, 1893—Mexico (Tampico, Vera Cruz; Atoyac and Vega del Casadero, Vera Cruz; Valley of Mexico; Teapa, Tabasco), British Honduras (Orange Walk, Cayo), and Guatemala (Choctum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 261, pl. 67, fig. 1, 1902—same localities and San Pedro, Honduras.

Leptotila bonapartii Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 15, Feb., 1871—Mexico—Playa Vicente, Vera Cruz² (type in U. S. National Museum); Salvin, Ibis, 1874, p. 312 (crit.).

Leptotila plumbeiceps Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 25, 1878—Vera Paz, Guatemala; Bangs, Bull. Mus. Comp. Zool., 39, p. 142, 1903—Ceiba, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 80, 1907—Los Amates, Guatemala; Bangs, Proc. Biol. Soc. Wash., 22, p. 29, 1909—Bolson, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 402, 1910—Bolson, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 462, 1916—southeastern Mexico to western Costa Rica and Colombia (Rio Zapata) (monog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 212, 1917—Guengüe and Rio Frio, Cauca Valley; Las Lomitas and Caldas, western Andes, Colombia (crit.).

Leptotila rufaxilla (not of Richard and Bernard) Bonaparte, Proc. Zool. Soc. Lond., 5, p. 113, 1837—Mexico (descr.); Sclater, l.c., 24, p. 309, 1856—Córdoba, Vera Cruz (crit.); Sclater and Salvin, Ibis, 1860, p. 402—hot region of Guatemala [= Choctum].

Leptotila plumbeiceps plumbeiceps Peters, Bull. Mus. Comp. Zool., 69, p. 406, 1929—Yoro road close to Tela, Honduras; Griscom, Bull. Amer. Mus.

¹*Leptotila plumbeiceps* is almost certainly conspecific with *L. rufaxilla*, but until the status of the Colombian forms has been satisfactorily determined, we hesitate to reduce it to subspecific rank.

²The type is labeled "P.V. juin, 1859," the initials signifying no doubt Playa Vicente, where Sallé's correspondent, Adolphe Boucard, made important collections.

N. H., 64, p. 118, 1932—Guatemala (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 306, 1932—Honduras (San Pedro, Ceiba, Lancetilla); Carriker and de Schauensee, l.c., 87, p. 414, 1935—Quiriguá, Guatemala; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Chuntuquí and Sacchich, Petén, Guatemala; Peters, Bds. World, 3, p. 125, 1937 (range).

(?) *Leptotila plumbeiceps notius* Peters, Bull. Mus. Comp. Zool., 71, p. 298, 1931—Almirante, Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); Griscom, l.c., 78, p. 311, 1935—Almirante region, Panama; Peters, Bds. World, 3, p. 126, 1937 (range).

Leptotila plumbeiceps subsp.(?) Peters, Bds. World, 3, p. 126, 1937—Cauca Valley and western Andes, Colombia.

Range.—Tropical zone of southeastern Mexico, in states of Tamaulipas (Tampico), Vera Cruz (Córdoba, Mirador, Buena Vista, Motzorongo, Atoyac, Playa Vicente, San Andrés Tuxtla, Vega del Casadero), Mexico (Valley of Mexico), Oaxaca (Tutla), and Tabasco (Teapa, Frontera), and southwards through eastern Guatemala (Choctum, and between Coban and Chisec, Alta Verapaz; Los Amates, Izabal; Chuntuquí and Sacchich, Petén), British Honduras (Orange Walk, Cayo, near Manatee Lagoon), Honduras (San Pedro, Ceiba, near Tela, etc.), Nicaragua (Rio Escondido), western Costa Rica (Bolson, Las Trojas, Pígres, Pirrís, El Pózo del Rio Grande), and Panama (Almirante, Changuinola, Bocas del Toro), to western Colombia (Guengüe and Rio Frio, Cauca Valley; Rio Zapata, Timba, and Munchique, Cauca; Las Lomitas and Caldas, western Andes).¹

Field Museum Collection.—2: Guatemala (unspecified, 1; Los Amates, Izabal, 1).

Conover Collection.—11: Mexico (Tutla, Oaxaca, 2); Guatemala (unspecified, 1); Honduras (Ceguaca, Santa Barbara, 2; El Jaral, Lake Vojoa, 2); Colombia (Munchique, El Tambo, Cauca, 3; Timba, Valle, 1).

***Leptotila plumbeiceps malae* Griscom.² CAPE MALA GRAY-HEADED DOVE.**

¹ While we have not seen any specimens from the Almirante region of Panama, we believe *L. p. notius*, based on three skins, to be untenable, since adults from Colombia (Rio Zapata) are nowise distinguishable from various Central American individuals, notably one from Honduras (San Pedro). We are, therefore, inclined to agree with Chapman, who with the help of more adequate material came to the conclusion that it would serve no practical purpose to split Bonaparte's Dove on purely geographical grounds. The existence of a separate race in the Almirante region of Panama, halfway as it is between Guatemala and Colombia, seems altogether unlikely.

² *Leptotila plumbeiceps malae* Griscom: Intermediate between *L. p. plumbeiceps* and *L. p. battyi*; upper parts much browner, less olive than the former, with the

Leptotila plumbeiceps malae Griscom, Amer. Mus. Nov., 280, p. 4, 1927—Cerro Montosa, Cape Mala, Los Santos, western Panama (type in the American Museum of Natural History, New York); idem, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Cape Mala Peninsula, Panama; Peters, Bds. World, 3, p. 126, 1927 (range).

Range.—Cape Mala Peninsula, Veraguas, western Panama.

***Leptotila plumbeiceps battyi* (Rothschild).¹ BATTY'S GRAY-HEADED DOVE.**

Leptotila battyi Rothschild, Bull. Brit. Orn. Cl., 12, p. 33, 1901—Coiba Island, off Panama (type in Tring Collection, now in the American Museum of Natural History, New York).

Leptotila battyi Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 464, 1916—Coiba Island (monog.).

Leptotila plumbeiceps battyi Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Coiba Island; Peters, Bds. World, 3, p. 126, 1937 (range).

Range.—Coiba Island, off Pacific coast of Panama.

****Leptotila pallida* (Berlepsch and Taczanowski).² PALLID DOVE.**

Leptotila pallida Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 575—Chimbo, Ecuador (type now in Warsaw Museum; cf. Sztolcman

purple gloss more pronounced as well as more extensive; throat and breast grayer, less vinaceous, and the flanks grayish brown rather than buff olive-brown; differing from *L. p. battyi* by being browner, less rufous above, the purple gloss less extensive; throat and breast more vinaceous, less grayish, and flanks more grayish brown.

While the single known specimen tends to show that *battyi* is merely a well-marked insular race, a series from the Cape Mala Peninsula is required to establish its subspecific characters. The type may possibly be but an individual variant of the widespread *L. p. plumbeiceps*, approaching the Coiba Island Dove.

¹*Leptotila plumbeiceps battyi* (Rothschild): Similar to *L. p. plumbeiceps*, but upper parts (excepting the slate-gray pileum and nape) decidedly rufous (cinnamon-brown to auburn); sides of neck distinctly slate-gray; foreneck and breast much duller and less pinkish, ecru-drab with a slight pinkish hue rather than plain vinaceous-buff; flanks more buff-brown.

Two specimens examined.

²*Leptotila pallida* (Berlepsch and Taczanowski) looks like a pale form of *L. rufaxilla*, its chief distinctive features being the reddish brown median rectrices, the extensively light gray crown, and the very pale pinkish breast. However, a second species allied to the *rufaxilla* complex, viz., *L. p. plumbeiceps*, also occurs in western Colombia, and it is hard to say at present which one of the two is the actual representative of *L. rufaxilla* west of the Andes. *L. pallida* and *L. p. plumbeiceps* have not yet been collected at exactly the same localities, though in the same faunal region: *L. pallida* at Nóvita, San José, and Barbacoas, all situated at very low altitudes between sea-level and 400 feet; *L. p. plumbeiceps* higher up on the western slope of the western Andes at elevations of from 2,500 to 4,500 feet. More detailed information about the breeding ranges of these doves in western Colombia thus seems imperative, before we can hope to arrive at a clear understanding of their inter-relationship.

Additional material examined.—Western Ecuador: Rio Sapáyo, 1; Pambilár, 5; Rio Peripa, 1.

and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 104, 1927); *idem*, l.c., 1885, p. 111—Yaguachi, Ecuador; Salvadori, Cat. Bds. Brit. Mus., 21, p. 560, 1893—Balzar, Ecuador; *idem* and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 36, 1900—Rio Peripa, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 18, 1922—below Nono, Ecuador.

Leptotila pallida Hartert, Nov. Zool., 9, p. 603, 1902—Ventana, Vacqueria, Bulún, San Javier, and Pambilár, Prov. Esmeraldas, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 213, 1917—Nóvita, San José, and Barba-coas (Nariño), Ecuador (*crit.*); *idem*, l.c., 55, p. 170, 1926—Esmeraldas, Chone, Naránjo, Bucay, Chanchan-Chiguancay, Puente de Chimbo, Rio de Oro, and Santa Rosa, Ecuador.

Leptotila albifrons (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 28, p. 289, 1860—Babahoyo, Ecuador.

Leptotila rufaxilla pallida Peters, Bds. World, 3, p. 126, 1937 (range).

Range.—Tropical zone of the Pacific coast region of western Colombia and western Ecuador, from the Rio San Juan to Province of Loja (Santa Rosa).

Field Museum Collection.—1: Ecuador (Rio Sapáyo, Esmeraldas, 1).

Conover Collection.—9: Ecuador (San Mateo, Esmeraldas, 3; Pambilár, 3; Isla Silva, Sur, Province de los Rios, 1; Balzapamba, Bolívar, 2).

****Leptotila rufaxilla pallidipectus* Chapman.¹ PALE-BREASTED GRAY-FRONTED DOVE.**

Leptotila rufaxilla pallidipectus Chapman, Bull. Amer. Mus. N. H., 34, p. 369, 1915—Buena Vista, east slope of eastern Andes above Villavicencio, Colombia (type in the American Museum of Natural History, New York; *idem*, l.c., 36, p. 212, 1917—Buena Vista and Villavicencio, Colombia; Peters, Bds. World, 3, p. 126, 1937 (range).

Leptotila rufaxilla (not *Columba rufaxilla* Richard and Bernard) Salvadori, Cat. Bds. Brit. Mus., 21, p. 551, 1893—part, spec. q, vicinity of "Bogotá."

Leptotila rufaxilla Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 37, 1922—Santa Elena, Rio Guachí, and Orope, Zulia, Venezuela.

Range.—Tropical zone of eastern Colombia at the eastern base of the eastern Andes (Buena Vista, Villavicencio), and northwestern Venezuela (State of Zulia).

¹*Leptotila rufaxilla pallidipectus* Chapman differs from all the other races by much paler, vinaceous-buff breast; paler, light brownish-olive back with very little, if any, purplish reflections; and more grayish, less iridescent hind neck. Otherwise it resembles *L. r. dubusi* in color as well as in size, but has more white on the throat.

A single native "Bogotá" skin examined by Hellmayr. The three skins from Zulia are but slightly lighter on breast and back than *L. r. dubusi*.

Adequate material of this race is urgently required.

Field Museum Collection.—2: Venezuela (Orope, Zulia, 2).

Conover Collection.—1: Venezuela (Santa Elena, Rio Guachí, Zulia, 1).

****Leptotila rufaxilla dubusi* (Bonaparte).¹ DUBUS'S GRAY-FRONTED DOVE.**

Leptotila dubusi Bonaparte, Compt. Rend. Acad. Sci. Paris, **40**, No. 3, p. 99, for Jan. 15, 1855—banks of the Rio Napo, Ecuador (type in Paris Museum); idem, Consp. Gen. Av., 2, sig. 10, Dec. 5, 1854, p. 74, "April 15, 1855" [=1857]—Rio Napo; Selater, Proc. Zool. Soc. Lond., **26**, p. 76, 1858—Rio Napo; idem and Salvin, l.c., 1866, p. 198—[Rio Ucayali], Peru; iidem, l.c., 1873, p. 306—Sarayacu and Santa Cruz, Peru.

Leptotila rufaxilla (not *Columba rufaxilla* Richard and Bernard) Selater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 598—Cosnipata, Cuzco, Peru; Taczanowski, l.c., 1874, p. 556—Monterico, Peru; idem, Orn. Pér., **3**, p. 254, 1886—Peru (Monterico, Iquitos); Salvadori, Cat. Bds. Brit. Mus., **21**, p. 551, 1893—part, spec. m-p, Peru (Iquitos, Santa Cruz, Cosnipata) and Ecuador (Sarayacu); idem and Festa, Boll. Mus. Zool. Torino, **15**, No. 368, p. 36, 1900—Gualaquiza, Zamora, and Rio Santiago, Ecuador; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—La Merced and La Gloria, Junín, Peru.

Leptotila rufaxilla Berlepsch and Hartert, Nov. Zool., **9**, p. 118, 1902—Altigracia(?), Maipures, Perico, and Rio Catañapa, Rio Orinoco, Venezuela.

Leptotila rufaxilla rufaxilla Cherrie, Sci. Bull., Mus. Brookl. Inst., **2**, p. 352, 1916—Orinoco River.

Leptotila rufaxilla dubusi Chapman, Bull. Amer. Mus. N. H., **34**, p. 369, 1914—-from the Guaviare River in Colombia to eastern Ecuador, east to the foot of Mount Duida, Venezuela (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., **2**, p. 353, 1916—foot of Mount Duida, Venezuela; Chapman, Bull. Amer. Mus. N. H., **36**, p. 211, 1917—La "Manuelita" [=Morelia] and Florencia, Caquetá, Colombia; idem, l.c., **55**, p. 170, 1926—Zamora, Rio Suno, and below San José, eastern Ecuador; Peters, Bds. World, **3**, p. 126, 1937 (range).

Range.—Tropical zone of southeastern Colombia south through eastern Ecuador and eastern Peru to the Cuzco region (Cosnipata)²

¹ *Leptotila rufaxilla dubusi* (Bonaparte): Similar to *L. r. rufaxilla*, but perhaps distinguishable by having the breast more vinaceous-fawn, less pinkish. Wing (male), 132-145.

The senior author does not find any material difference between two specimens from eastern Ecuador (Gualaquiza, Zamora), two from the upper Orinoco (Rio Catañapa, Perico), one from Iquitos, and one from La Merced, Chanchamayo, Peru. The junior author on comparing a good series failed to find any constant difference from *rufaxilla* except in the slightly more fawn, less pinkish coloration of the breast, but even this character does not always hold. Two adults from Bolivia are but provisionally referred to the present form.

² *Engyptila rufaxilla* Allen (Bull. Amer. Mus. N. H., **2**, p. 106, 1889—Reyes, Bolivia) possibly belongs here too.

and eastern Bolivia, and east to the upper Orinoco, Venezuela (Perico, Rio Catañapa, Maipures, foot of Mount Duida)¹ and western Brazil (Rio Purús).

Conover Collection.—24: Ecuador (Rio Catapiño, 3; Concepción, 6; Cerro Guataraco, 1; Ouca-Yaca, Loreto, 2; Sara-Yaco, Rio Bobonaza, 4); Brazil (Canutama, Rio Purús, 2; Labrea, Rio Purús, 4); Bolivia (Yungas de Cochabamba, Cochabamba, 1; Buena Vista, Santa Cruz, 1).

***Leptotila rufaxilla hellmayri* Chapman.² HELLMAYR'S GRAY-FRONTED DOVE.**

Leptotila rufaxilla hellmayri Chapman, Bull. Amer. Mus. N. H., 34, p. 368, 1915—near Princetown, Trinidad (type in the American Museum of Natural History, New York); Peters, Bds. World, 3, p. 127, 1937 (range).

Peristera rufaxilla (not *Columba rufaxilla* Richard and Bernard) Taylor, Ibis, 1864, p. 94—Trinidad; Léotaud, Ois. Trinidad, p. 371, 1866—Trinidad.

Engyptila rufaxilla Chapman, Bull. Amer. Mus. N. H., 6, p. 73, 1894—near Princetown.

Leptotila rufaxilla Hellmayr, Nov. Zool., 13, p. 48, 1906—Caparo, Valencia, and Chaguanas, Trinidad; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 370, 1908—Carenage and Aripo, Trinidad.

Leptotila rufaxilla rufaxilla Roberts, Trop. Agric., 11, p. 92, 1934—Trinidad (nest and eggs descr.); Belcher and Smooker, Ibis, 1936, p. 7—Trinidad (nest and eggs).

Range.—Island of Trinidad and northeastern Venezuela (State of Sucre).

****Leptotila rufaxilla rufaxilla* (Richard and Bernard). GRAY-FRONTED DOVE.**

Columba (rufaxilla) Richard and Bernard, Act. Soc. Hist. Nat. Paris, 1, (1), p. 118, 1792—Cayenne, French Guiana (type no doubt lost).

Columba frontalis Temminck, in Temminck and Knip, Les Pigeons, 1, Colombi-gallines, p. 18, pl. 10, 1811—French Guiana (cotypes in Paris Museum).

¹ It remains to be determined whether birds from the middle stretches of the Orinoco (Altagracia) pertain to the present or some other race.

² *Leptotila rufaxilla hellmayri* Chapman: Similar to *L. r. rufaxilla* and about the same size, but foreneck and breast richer, deeper vinaceous, and upper parts as a rule more cinnamomeous with the crown paler, the forehead in particular more whitish; similar also to *L. r. dubusi*, but larger, more cinnamomeous above with whiter forehead and more extensively blue-gray crown, and with white gular area more extended posteriorly. Wing, 140–143, (female) 137–140.

Birds from the Cumaná region of Venezuela, while more or less intermediate to the nominate race, seem to be nearer to the Trinidad form.

Material examined.—Trinidad: Caparo, 5; Aripo, 2; Chaguanas, 1.—Venezuela: Paria Peninsula, 5.

Columba jamaicensis (not of Linnaeus) Schomburgk, Reisen Brit. Guiana, 2, p. 490, 1848—sandhills on the Demerara River.

Peristera jamaicensis Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 744, 1849—British Guiana.

Leptoptila rufaxilla Bonaparte, Consp. Gen. Av., 2, p. 73, 1857—part, Guiana; idem, Bull. Soc. Linn. Normandie, 2, p. 38, 1857—Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 591—Mexiana, Brazil; Pelzeln, Orn. Bras., 3, p. 279, 1870—part, Borba, Rio Madeira (spec. examined); Allen, Bull. Essex Inst., 8, p. 82, 1876—Santarém, Rio Tapajóz; Salvadori, Cat. Bds. Brit. Mus., 21, p. 551, 1893—part, spec. c-l, British Guiana (Quonga, Bartica Grove), Mexiana, Pará, and "Pernambuco";¹ Goeldi, Ibis, 1897, p. 164—Lagôa Grande do Amapá, northern Pará; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 184, 1904—Camopi, French Guiana; Hagmann, Zool. Jahrb. (Syst.), 26, p. 42, 1907—Mexiana; Snethlage, Bol. Mus. Goeldi, 8, p. 67, 1914—Rio Tapajóz (Mararú, Goyana), Obidos (Col. do Veado), and Rio Jamundá (Faro), Brazil; Chubb, Bds. Brit. Guiana, 1, p. 48, 1916—numerous localities; Snethlage, Bol. Mus. Rio de Janeiro, 2, No. 6, p. 68, 1926—Tury-assú, Maranhão.

Engyptila rufaxilla Salvin, Ibis, 1886, p. 174—British Guiana (Bartica Grove, Camacusa, Roraima); Chapman and Riker, Auk, 8, p. 162, 1891—Santarém.

Leptotila rufaxilla Berlepsch, Nov. Zool., 15, p. 296, 1908—Cayenne, Ipousin, and Approuague, French Guiana; Hellmayr, l.c., 17, p. 416, 1910—Calama, Rio Madeira; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará and Mexiana; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 151, 1928—Pará and Pinheiro, Pará; Brodkorb, Occ. Papers, Mus. Zool. Univ. Mich., 349, p. 2, 1937—Caviana.

Leptotila rufaxilla rufaxilla Chapman, Bull. Amer. Mus. N. H., 34, p. 367, 1915 (crit.); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 46, 1918—vicinity of Paramaribo, Surinam; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 470, 1929—Tury-assú, Maranhão; Peters, Bds. World, 3, p. 127, 1937 (range).

Range.—British, Dutch, and French Guiana, and northern Brazil, north of the Amazon west to the Rio Jamundá, south of the river from northern Maranhão west to the Rio Madeira.²

Field Museum Collection.—16: British Guiana (Mazaruni River, 1; Boundary Camp, Itabu Creek Head, upper New River, 5; Middle Base Camp, Itabu Creek, upper New River, 7); Dutch Guiana (near Paramaribo, 2); Brazil (Tury-assú, Maranhão, 1).

¹ The locality "Pernambuco" is in need of corroboration, since it is more likely to be *L. r. bahiae* which occurs in that part of Brazil.

² Birds from northern Brazil, including one from Borba, Rio Madeira, seem to be inseparable from those of Guiana. Those from Surinam have lately been separated as *L. r. hypochroos* by Griscom and Greenway (Bull. Mus. Comp. Zool., 81, p. 419, 1937).

Conover Collection.—15: British Guiana (Rockstone, Essequibo River, 2; Kartabo, 1; Roraima, 1; unspecified, 1); Brazil (Utinga Igapó, Pará, 1; Serraria Cabral, Rio Acará, 1; Ipomonga, Rio Capim, 1; Tauary, Rio Tapajóz, 2; Caxiricatuba, Rio Tapajóz, 1; Boca de Channel Piava, near Obidos, 4).

****Leptotila rufaxilla bahiae* (Berlepsch).¹ BAHIA GRAY-FRONTED DOVE.**

Leptotila reichenbachii bahiae Berlepsch, Zeits. Ges. Orn., 2, p. 177, 1885—based on *Leptotila reichenbachii* (not of Pelzeln) Berlepsch, Journ. Orn., 22, p. 246, 1874 (type, from Bahia, in coll. of H. von Berlepsch, now in Frankfort Museum, examined).

Columba iamaicensis (not *Columba jamaicensis* Linnaeus) Wied, Reise Bras., 2, p. 341 (8vo ed., p. 340), 1821—Illa Cachoeirinha, Rio Belmonte, Bahia.

Columba rufaxilla (not of Richard and Bernard) Wied, Beitr. Naturg. Bras., 4, (2), p. 474, 1833—eastern Brazil (in part).

Engyptila rufaxilla Allen, Bull. Amer. Mus. N. H., 5, p. 149, 1893—Chapada, Matto Grosso.

Leptotila bahiae Salvadori, Cat. Bds. Brit. Mus., 21, p. 553, 1893—Bahia.

Leptotila reichenbachii bahiae Ihering, Cat. Faun. Braz., 1, p. 24, 1907—Bahia.

Leptotila rufaxilla reichenbachii (not *L. reichenbachii* Pelzeln) Naumburg, Bull. Amer. Mus. N. H., 60, p. 69, 1930—Rio São Lourenço, Matto Grosso.

Leptotila rufaxilla reichenbachii Pinto, Rev. Mus. Paul., 20, p. 33, 1936—Rio Meia Ponte, Goyáz.

Leptotila rufaxilla bahiae Peters, Bds. World, 3, p. 127, 1937—Bahia.

Range.—Brazil, from Bahia (Rio Belmonte, Caravellas) through southern Goyáz (Cavalcanti) to southern Matto Grosso (Vaccaria).

Field Museum Collection.—3: Brazil (São Marcello, Bahia, 2; Fazenda Capão Bonita, Vaccaria, Matto Grosso, 1).

Conover Collection.—5: Brazil (Volta da Serra, Veadeiros, near Cavalcanti, Goyáz, 1; Rio São Miguel, near Cavalcanti, Goyáz, 2; Fazenda Capão Bonita, Vaccaria, Matto Grosso, 2).

****Leptotila rufaxilla reichenbachii* (Pelzeln). REICHENBACH'S GRAY-FRONTED DOVE.**

Leptotila reichenbachii(i) Pelzeln, Orn. Bras., 3, pp. 279, 337, 1870—Ypanemá, São Paulo, Brazil (cotypes in Vienna Museum examined); Berlepsch

¹ *Leptotila rufaxilla bahiae* (Berlepsch) is not a strongly marked race. Specimens from Bahia differ from typical examples of *reichenbachii* from São Paulo by being lighter (more pinkish) below, especially on the chest, and perhaps slightly lighter on the hind neck and mantle. Birds from Goyaz are still lighter, while specimens from southern Matto Grosso (Vaccaria) are darker, tending toward *reichenbachii*.

Three additional specimens from Bahia, including the type, examined.

and Ihering, Zeits. Ges. Orn., 2, p. 177, 1885—Taquara, Rio Grande do Sul (crit.); Salvadori, Cat. Bds. Brit. Mus., 21, p. 553, 1893—Brazil (Mattodentro, São Paulo; Cantagallo, Rio de Janeiro) and Uruguay (Paysandú); Ihering, Annuario Est. Rio Grande do Sul, 16, p. 146, 1899—Rio Grande do Sul (Mundo Novo, São Lourenço); idem, Rev. Mus. Paul., 3, p. 402, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 163, 1900—Cantagallo, Rio de Janeiro; Bertoni, Anal. Cient. Parag., 1, No. 3, p. 9, 1904—Puerto Bertoni, Alto Paraná, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 410, 1910—Paysandú, Uruguay, and Alto Paraná, Paraguay; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 461, 492, 1912—Vera Guarany, Paraná; Dabbene, Bol. Soc. Physis, 1, p. 254, 1913—Santa Ana, Misiones; Bertoni, Faun. Parag., p. 37, 1914—Alto Paraná; Tremoleras, El Hornero, 2, p. 11, 1920—Paysandú, Uruguay; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 117, 1926—Fazenda Firmiano, Fazenda Ferreira, Therezina, and Candido de Abreu, Paraná.

Columba rufaxilla (not of Richard and Bernard) Wied, Beitr. Naturg. Bras., 4, (2), p. 474, 1833—eastern Brazil (in part); Burmeister, Reise Bras., p. 299, 1853—near Villa da Pomba, Minas Geraes.

Columba (*Peristera*) *rufaxilla* Burmeister, Journ. Orn., 1, p. 175, 1853 (egg).

Peristera frontalis (not *Columba frontalis* Temminck) Burmeister, Syst. Uebers. Th. Bras., 3, p. 305, 1853—Rio de Janeiro (descr.); Euler, Journ. Orn., 15, pp. 190, 196, 417, 1867—Cantagallo, Rio (breeding habits).

Leptoptila rufaxilla Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 180, 1906—Caminho do Couto, Serra do Itatiaya; Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 339, 1909 (ex Miranda).

Leptoptila rufescens Berlepsch, Journ. Orn., 22, p. 246, 1874—Cantagallo, Rio de Janeiro (type in Berlin Museum).

Leptotila reichenbachii Ihering, Cat. Faun. Braz., 1, p. 24, 1907—São Paulo (Iguapé, Rincão, Rio Mogy-guassú) and Paraná (Ourinho); Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Alto Paraná; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, pp. 243, 253, 1923—Caminho do Couto, Itatiaya (crit.); Holt, Bull. Amer. Mus. N. H., 57, p. 282, 1928—Serra do Itatiaya.

Leptoptila callauchen (not of Salvadori) Chubb, Ibis, 1910, p. 63—Sapucay, Paraguay (crit.).

Leptotila rufaxilla reichenbachii Peters, Bds. World, 3, p. 127, 1937—part, Rio de Janeiro to Paraguay and Uruguay.

Range.—Southeastern Brazil, from Rio de Janeiro (Cantagallo; Caminho do Couto, Serra do Itatiaya) and Minas Geraes (São Francisco; Rio Jordão, Prov. Araguay), south to Rio Grande do Sul; Uruguay (Paysandú); Paraguay (Sapucay; Puerto Bertoni, Alto Paraná), and Misiones (Santa Ana).¹

¹ Birds from various parts of southern Brazil agree well together, the length of wing in adults ranging from 146 to 154, that of the tail from 103 to 115. A single adult male from Iguazú, Misiones, is precisely alike in coloration, but slightly smaller (wing, 140; tail, 100). Chubb's figures for a couple of adults from Sapucay, Paraguay (wing of male, 150; of female, 140), however, tend to indicate

Field Museum Collection.—1: Brazil (Fazenda Cayoá, Rio Parapanema, São Paulo, 1).

Conover Collection.—11: Brazil (Fazenda Cayoá, Rio Parapanema, São Paulo, 1); Paraguay (Villa Rica, 4; Santa Barbara, 1; Itapé, 1; Capitan Bado, Cerro Amambay, 1); Argentina, Misiones (Santa Ana, 1; Eldorado, 1; Puerto Segundo, 1).

Genus OSCULATIA Bonaparte

Osculatia Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 102, Jan. 15, 1855—type, by monotypy, *Geotrygon saphirina* Bonaparte; idem, Consp. Gen. Av., 2, p. 73, 1857.

**Osculatia saphirina purpurata* Salvin.¹ PURPLE QUAIL DOVE.

Osculatia purpurata Salvin, Ibis, (4), 2, p. 448, 1878—Ecuador (type in Salvin-Godman Collection, now in British Museum); Salvadori, Cat. Bds. Brit. Mus., 21, p. 563, pl. 14, 1893—Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 213, 1917—La Vieja (Chocó), Nóvita Trail, and Buena Vista (Nariño), Pacific Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 18, 1922—Santo Domingo de los Coronados and (?) Piganta, western Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 171, 1926—western Ecuador.

Osculatia purpurea Hartert, Nov. Zool., 5, p. 506, 1898—Cachaví, Ecuador; Goodfellow, Ibis, 1902, p. 228—Santo Domingo, Ecuador.

Osculatia saphirina purpurea Hartert, Nov. Zool., 9, p. 603, 1902—Cachaví, Lita, Rio "Japayo" [= Sapáyo], and Nanegal, Ecuador (crit.).

Osculatia saphirina purpurata Ménégau, Miss. Serv. Géogr. Armée Mes. Arc. Mérid. Equat., 9, p. B. 7, 1911—Santo Domingo, Ecuador; Peters, Bds. World, 3, p. 128, 1937 (range).

Range.—Tropical zone of the Pacific slope of Colombia and Ecuador, from Chocó south to Santo Domingo de los Coronados.

Field Museum Collection.—1: Ecuador (Montes de Achotal, 1).

that the variation in size is individual rather than geographic. We do not know why Chubb imagines the Sapucay birds to be *L. callauchen* (described from Jujuy). While clearly pointing out the specific characters that separate *reichenbachii* from *chlorauchenia* [= *decipiens*], he omits to tell us how the Paraguayan specimens differ from *reichenbachii*, and as the Misiones bird examined by the senior author is unquestionably referable to the latter, we do not hesitate to place the Sapucay record under the present form.

Additional material examined.—Brazil: São Francisco, Minas Geraes, 1; Rio Jordão, Prov. Araguay, Minas Geraes, 1; Ypanemá, São Paulo, 4; Victoria, São Paulo, 3; Roça Nova, Serra do Mar, Paraná, 1.—Argentina: Iguazú, Misiones, 1.

¹ *Osculatia saphirina purpurata* Salvin, although well-marked, is clearly but the western representative of *O. saphirina*.

Six additional specimens from western Ecuador (Cachaví, Lita, Nanegal, and Santo Domingo) examined by Hellmayr.

Conover Collection.—18: Colombia, Cauca (La Costa, El Tambo, 6; Rio Munchique, El Tambo, 1; Rio Michengue, El Tambo, 1); Ecuador (Rio Caune, Esmeraldas, 1; Rio Blanco, Esmeraldas, 3; Rio Blanco, Pichincha, 2; Rio Verde, 1; Milpe Mindo, Pichincha, 1; Montes de Achotal, 2).

****Osculatia saphirina saphirina* (Bonaparte). SAPPHIRE QUAIL DOVE.**

Geotrygon saphirina Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 101, Jan. 15, 1855—Rio Napo, Ecuador (type in Paris Museum examined).

Osculatia saphirina Bonaparte, Consp. Gen. Av., 2, p. 73, 1857—Rio Napo; idem, Icon. Fig., pl. 116, ca. 1857 (fig. of type); Sclater and Salvin, Proc. Zool. Soc. Lond., 1880, p. 155—eastern Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 171, 1926—upper Rio Suno and below San José, Ecuador.

Osculatia saphirina Salvadori, Cat. Bds. Brit. Mus., 21, p. 563, 1893—Sarayacu; idem and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 36, 1900—Rio Santiago; Goodfellow, Ibis, 1902, p. 228—Rio Suno, upper Napo.

Osculatia saphirina saphirina Peters, Bds. World, 3, p. 128, 1937 (range).

Range.—Tropical zone of eastern Ecuador (Rio Napo, Rio Pastaza, Rio Suno, Sarayacu, below San José, Rio Santiago, etc.).¹

Conover Collection.—10: Ecuador (Sarayacu, Canton-Pastaza, 1; Raya-Chigta, Loreto, 1; headwaters of Rio Tigre, Napo-Pastaza, 5; Avila, 1; Guataraco, Rio Suno, 1; Cerro Galera, 1).

***Osculatia saphirina rothschildi* Sztolcman.² ROTHSCILD'S SAPPHIRE QUAIL DOVE.**

Osculatia rothschildi Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 202, pl. 4, figs. 1, 2, Dec. 31, 1926—Cadena, Marcapata Valley, Peru (type in Warsaw Museum).

Osculatia saphirina (not of Bonaparte) Berlepsch and Stolzmann, Ornith., 13, p. 125, 1906—Rio Cadena, Peru.

Osculatia saphirina rothschildi Peters, Bds. World, 3, p. 128, 1937 (range).

Range.—Tropical zone of southeastern Peru (Rio Cadena, Marcapata Valley, Dept. Cuzco).

¹ Four additional specimens, including the type, from eastern Ecuador examined by Hellmayr.

² *Osculatia saphirina rothschildi* Sztolcman: Similar to *O. s. saphirina*, but smaller; lower back and rump more bluish, less purplish; white spot on secondaries larger; under tail coverts paler. Wing (female), 124; tail, 75; bill, 17.

Many years ago, on comparing the unique Rio Cadena female with two unsexed adults from Sarayacu, Ecuador, the senior author noticed the above slight divergencies, which have since been corroborated through independent study by Sztolcman. Wings of females of typical *saphirina* from Ecuador measure 132–139 mm. The validity of *rothschildi*, however, requires corroboration by an adequate series.

Genus GEOTRYGON Gosse

Geotrygon Gosse, Bds. Jamaica, p. 316 (footnote), 1847—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 100, 1855), *Columba cristata* Temminck = *Geotrygon sylvatica* Gosse = *Columbigallina versicolor* Lafresnaye.

**Geotrygon versicolor* (Lafresnaye). CRESTED QUAIL DOVE.

Columba cristata (not of Gmelin, 1789) Temminck, in Temminck and Knip, Les Pigeons, 1, Les Colombes, p. 20, pl. 9, 1809—"îles des Amis, dans la mer du Sud," errore (type lost, formerly in coll. of C. J. Temminck); Temminck, Hist. Nat. Fig. Gall., 1, pp. 108, 449, 1813—same locality.

Columba pacifica (not of Gmelin, 1789) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 347, 1818—based on Temminck and Knip, Les Pigeons, 1, Les Colombes, pl. 9.

Columbigallina versicolor Lafresnaye, Rev. Zool., 9, p. 321, 1846—Jamaica (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 167, 1930).

Geophaps versicolor Des Murs, Icon. Orn., livr. 8, pl. 47, after July, 1847—Jamaica (fig. of a cotype).

Geotrygon sylvatica Gosse, Bds. Jamaica, p. 316 (footnote), 1847—Jamaica (type apparently lost); idem, Illust. Bds. Jam., pl. 84, 1849; Hill, Proc. Acad. Nat. Sci. Phila., 1867, p. 130—Jamaica (habits).

Geotrygon cristata March, Proc. Acad. Nat. Sci. Phila., 1863, p. 300—Jamaica; Cory, Auk, 4, p. 117, 1887—Jamaica (descr.); idem, Bds. W. Ind., p. 218, 1889—Jamaica; idem, Cat. W. Ind. Bds., p. 97, 1892—Jamaica; Scott, Auk, 9, p. 125, 1892—Priestman's River; Salvadori, Cat. Bds. Brit. Mus., 21, p. 573, 1893—St. Ann's and Spanish Town.

Starnoenas cristata Schlegel, Mus. Pays-Bas, Columbae, p. 164, 1873—Jamaica.

Geotrygon versicolor Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 465, 1916 (monog.); Danforth, Auk, 45, p. 484, 1928—near Jackson Town, Jamaica; Peters, Bds. World, 3, p. 133, 1937 (range).

Range.—Island of Jamaica, Greater Antilles.

Field Museum Collection.—3: Jamaica (unspecified, 1; Spanish Town, Middlesex, 1; Priestman's River, Surrey, 1).

Conover Collection.—1: Jamaica (unspecified, 1).

Genus OROPELEIA Reichenbach¹

Oreopeleia Reichenbach, Av. Syst. Nat., p. xxv, Oct. 1, 1852—type, by orig. desig., "*Columba martinicana*" Brisson = *Columba martinica* Linnaeus.

Oropeleia "Reichenbach" Bonaparte, Ann. Sci. Nat., (4), Zool., 1, p. 140, 1854 (emendation).

¹ An unidentifiable species possibly belonging to this genus is *Columba melancholica* Tschudi (Arch. Naturg., 10, [1], p. 306, 1844; idem, Unters. Faun. Peru., Orn., p. 277, 1846—wood region of eastern Peru), the type of which cannot be found in the Neuchâtel Museum. Cf. Salvadori, Cat. Bds. Brit. Mus., 21, p. 496, 1893. The description, except for the remiges, corresponds tolerably well to *O. montana*.

Oropelia "Bonaparte" G. R. Gray, List Spec. Bds. Brit. Mus., 4, p. 51, 1856 (emendation).

****Oreopeleia caniceps caniceps* (Gundlach). GRAY-HEADED QUAIL DOVE.**

Columba caniceps Gundlach, Journ. Bost. Soc. N. H., 6, p. 315, 1852—Cuba (location of type not stated, probably in coll. of J. Gundlach, now in Habana Museum).

Geotrygon caniceps Gundlach, Journ. Orn., 4, p. 110, 1856—Cuba (descr.); idem, l.c., 22, p. 295, 1874—Cuba (nest and eggs descr.); Cory, Auk, 4, p. 118, 1887—Cuba (descr.); idem, Bds. W. Ind., p. 219, 1889—Cuba (descr.); idem, Cat. W. Ind. Bds., pp. 97, 128, 1892—Cuba; Salvadori, Cat. Bds. Brit. Mus., 21, p. 574, 1893—San Cristóbal, Cuba.

Oreopeleia caniceps Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 470, 1916—Cuba (monog.); Barbour, Mem. Nutt. Orn. Cl., 6, p. 74, 1923—Cuba (local distr.).

Oreopeleia caniceps caniceps Peters, Bds. World, 3, p. 130, 1937 (range).

Range.—Island of Cuba, Greater Antilles.

Conover Collection.—4: Cuba (Santo Tomás, Zapata Swamp, Santa Clara, 4).

****Oreopeleia caniceps leucometopius* Chapman.¹ HISPANIOLAN GRAY-HEADED QUAIL DOVE.**

Oreopeleia leucometopius Chapman, Bull. Amer. Mus. N. H., 37, p. 327, 1917—Loma Tina, Province of Azua, Dominican Republic (type in the American Museum of Natural History, New York); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 521, 1928—Morne La Selle, Haiti (from hearsay); Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 207, 1931—Dominican Republic (monog.).

Oreopeleia caniceps leucometopius Peters, Bds. World, 3, p. 130, 1937 (range).

Range.—Mountains of the Dominican Republic, island of Haiti, Greater Antilles.

Conover Collection.—2: Dominican Republic (Tubano, 1; unspecified, 1).

****Oreopeleia mystacea chrysia* (Salvadori). KEY WEST BRIDLED QUAIL DOVE.**

Geotrygon chrysia Salvadori,² Cat. Bds. Brit. Mus., 21, p. 571, 1893—"Haiti, Cuba, Bahamas, and Florida keys" (the male from Cuba may be regarded

¹ *Oreopeleia caniceps leucometopius* Chapman: Similar to the nominate race, but forehead white instead of gray; crown darker gray; back more bluish; metallic purple gloss on sides of breast more extensive; ventral region deeper russet; rufous color on outer webs of remiges more restricted; wing-tip shorter, etc.

Two additional specimens examined.

² We are not quite certain that Salvadori's name can stand for the Key West Quail Dove. Although the subspecific name is generally credited to Bonaparte (Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 100, Jan. 15, 1855), this author

as the type);¹ Brewster, *Auk*, 15, p. 185, 1898—Key West, Florida (Oct. 20 and Nov. 12, 1897); Riley, in Shattuck, *The Bahama Islands*, p. 362, 1905—Great Bahama, New Providence, and Eleuthera; Bangs and Zappey, *Amer. Natur.*, 39, p. 198, 1905—Pasadita, Isle of Pines; Ménégau, *Rev. Franç. d'Orn.*, 1, p. 30, 1909—Guantánamo, Manatel, Cuba; Todd, *Ann. Carnegie Mus.*, 10, p. 221, 1916—Nueva Gerona, Isle of Pines.

Geotrygon martinica (not *Columba martinica* Linnaeus) Gundlach and Cabanis, *Journ. Orn.*, 4, p. 108, 1856—Cuba (habits); Bonaparte, *Consp. Gen. Av.*, 2, p. 72, 1857—part, "Bermudas" and "southern Florida"; Gundlach, *Journ. Orn.*, 22, p. 293, 1874—Cuba (habits); Cory, *Bds. Bahamas*, p. 141, 1880—New Providence; idem, *Bds. Haiti & San Dom.*, p. 133, 1884—Puerto Plata, Dominican Republic; Scott, *Auk*, 7, p. 90, 1890—Key West, Florida (Sept. 15, 1889); Cory, *Auk*, 8, p. 350, 1891—Great Bahama and Eleuthera, Bahamas; idem, *Cat. W. Ind. Bds.*, p. 97, 1892—Bahamas (Great Bahama, Eleuthera, New Providence), Cuba, Isle of Pines, "Jamaica," Haiti, and "Porto Rico"; Cherrie, *Field Columb. Mus., Orn. Ser.*, 1, p. 24, 1896—Aguacate, Dominican Republic; Bonhote, *Ibis*, 1899, p. 517—New Providence, Bahamas; Verrill, *Proc. Acad. Nat. Sci. Phila.*, 1909, p. 357—Cayo Levantado, Samaná Bay, and Santo Domingo, Hispaniola.

Oreopeleia chrysia Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 471, 1916 (monog., full bibliog.); Peters, *Bull. Mus. Comp. Zool.*, 61, p. 406, 1917—Arroyo Salado and Puerto Plato, Dominican Republic; Barbour, *Mem. Nutt. Orn. Cl.*, 6, p. 73, 1923—Cuba; Wetmore, *Scient. Surv. Porto Rico & Virgin Is.*, 9, p. 404, 1927—Mona Island and Porto Rico (occurrence questionable); Bond, *Proc. Acad. Nat. Sci. Phila.*, 80, p. 499, 1928—Haiti, Gonave, and Tortue; Danforth, *Auk*, 46, p. 366, 1929—San Juan, Bonao, and Fonds-des-Nègres, Hispaniola; Wetmore and Swales, *Bull. U. S. Nat. Mus.*, 155, p. 205, 1931—Hispaniola (monog.); (?) Danforth, *Journ. Dept. Agr. Puerto Rico*, 15, p. 70, 1931—between Mayagüez and Añasco, Puerto Rico (sight record); Wetmore, *Proc. U. S. Nat. Mus.*, 81, art. 2, p. 22, 1932—Petite Cayemite and Gonave Islands; idem and Lincoln, *l.c.*, 82, art. 25, p. 34, 1933—La Ciénaga, south of Barahona, Hispaniola; Peters, *Bds. World*, 3, p. 129, 1937 (range).

Range.—Bahamas (Great Bahama, Eleuthera, and New Providence Islands) and Greater Antilles (Cuba, Isle of Pines, and Hispaniola);² occasional on Florida keys (Key West, Sept. 15, 1889; Oct. 20 and Nov. 12, 1897).

gives no description for the bird sent by Castelnau from Florida to the Paris Museum, but merely states that his *G. chrysia*, as used in correspondence, is not different from "*Col. martinica* L.," and later (in *Consp. Gen. Av.*, 2, p. 72, 1857) quotes it in the synonymy of *Geotrygon martinica* (Linnaeus). As Bonaparte never employed the name himself, we do not think that it can be construed as a substitute term for *Columba martinica*, thus preventing its further use in the genus. If admitted at all, it must, however, date from Salvadori, who first published it with a description, and not from Bonaparte.

¹ Salvadori's description was primarily based on the male from Cuba. Of the two females listed one has no locality, while the other is from "San Domingo."

² No absolutely certain record exists for Puerto Rico (cf. Wetmore, 1927, p. 404), while Jamaica is, without much doubt, erroneously included in its range.

Field Museum Collection.—8: Bahamas (Eleuthera, 2; Grand Bahama Banks, 1; Nassau, New Providence, 2); Cuba (near Palacios, Pinar del Rio, 2); Hispaniola, Dominican Republic (Puerto Plata, Puerto Plata, 1).

Conover Collection.—9: Cuba (Guantánamo, 2; Holquin, Santiago, 2; Santo Tomás, Zapata Swamp, Santa Clara, 5).

****Oreopeleia mystacea mystacea* (Temminck). BRIDLED QUAIL DOVE.**

Columba mystacea Temminck, in Temminck and Knip, *Les Pigeons*, 1, *Les Colombes*, p. 124, pl. 56, 1811—"l'Amérique" (type in coll. of J. C. Temminck, now in Leiden Museum);¹ Temminck, *Hist. Nat. Pige. Gall.*, 1, pp. 275, 473, 1813 (descr.).

Geotrygon mystacea Sclater, *Proc. Zool. Soc. Lond.*, 23, p. 163, 1855—"Bogotá," Colombia; Bonaparte, *Consp. Gen. Av.*, 2, p. 71, 1857—Santa Lucia and "Bogotá" (descr.); Sclater, *Proc. Zool. Soc. Lond.*, 1871, p. 267—Santa Lucia; idem, l.c., 1879, p. 765—Montserrat; Lawrence, *Proc. U. S. Nat. Mus.*, 1, pp. 460, 487, 1879—Guadeloupe; Allen, *Bull. Nutt. Orn. Cl.*, 5, p. 169, 1880—Santa Lucia; Cory, *Ibis*, 1886, p. 475—Grande Terre; idem, *Auk*, 4, p. 96, 1887—Martinique; idem, l.c., 4, p. 117, 1887—Guadeloupe, Santa Lucia, and Grande Terre; idem, *Bds. W. Ind.*, p. 218, 1889—Guadeloupe, Santa Lucia, and Grande Terre (descr.); idem, *Auk*, 8, pp. 47, 48, 1891—Antigua and St. Croix; idem, *Cat. W. Ind. Bds.*, p. 97, 1892—Barbuda, Antigua, Montserrat, Guadeloupe, Grande Terre, Dominica, Martinique, and Santa Lucia; Verrill, *Trans. Conn. Acad. Arts & Sci.*, 8, p. 325, 1892—Dominica (habits); Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 572, 1893—Guadeloupe and Montserrat; Riley, *Proc. Biol. Soc. Wash.*, 16, p. 14 (in text), 1903—Culebra; Wetmore, *Bull. U. S. Dept. Agr.*, 326, p. 49, 1916—Culebra; Noble, *Bull. Mus. Comp. Zool.*, 60, p. 375, 1916—Guadeloupe (Nez Cassé, Sainte Rose, Goyave).

Geotrygon sp. inc. Grisdale, *Ibis*, 1882, p. 492—Montserrat (habits).

Geotrygon sabae Riley, *Proc. Biol. Soc. Wash.*, 16, p. 13, 1903—Saba Island, Lesser Antilles (type in U. S. National Museum); Danforth, *Proc. Biol. Soc. Wash.*, 51, p. 73, 1938—Saba (crit.; =immature).

Oreopeleia mystacea mystacea Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 474, 1916 (monog., full bibliog.); Wetmore, *Sci. Surv. Porto Rico & Virgin Is.*, 9, p. 405, 1927—St. Croix and Culebra; Bond, *Proc. Acad. Nat. Sci. Phila.*, 80, p. 529, 1928—Lesser Antilles (islands not specified); Danforth, *Journ. Dept. Agr. Porto Rico*, 14, p. 121, 1930—St. Croix (Prosperity); Beatty, l.c., p. 144, 1930—St. Croix; Danforth, *Auk*, 51, p. 361, 1934—Antigua; idem, *Journ. Agr. Univ. Puerto Rico*, 19, p. 479, 1935—Barbuda (ex Cory); idem, *Monog. Univ. Puerto Rico, Ser. B, No. 3*, p. 44,

¹ Schlegel (*Mus. Pays-Bas*, livr. 10, *Columbae*, p. 164, 1873) claims that the type is from "St. Domingue," which can hardly be correct, since original plate and description clearly indicate the olive-backed race of the Lesser Antilles. Temminck, moreover, states that he does not know in which part of America his specimen—the only one he had seen—originated.

1935—Santa Lucia; idem, *Trop. Agric.*, 13, p. — [Sep., p. 3], 1936—St. Kitts and Nevis; Peters, *Bds. World*, 3, p. 129, 1937 (range).

Oreopeleia mystacea sabae Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 476, 1916—Saba (monog.); Peters, *Bds. World*, 3, p. 130, 1937 (range).

Oreopelia mystacea beattyi Danforth,¹ *Proc. Biol. Soc. Wash.*, 51, p. 73, 1938—Prosperity Garden, St. Croix, Virgin Islands (type in coll. of S. T. Danforth); Beatty, *Auk*, 56, p. 193, 1939—St. Thomas.

Range.—Greater Antilles (Culebra),² Virgin Islands (St. John, St. Thomas, St. Croix, Tortola), and Lesser Antilles (Saba, St. Kitts, Nevis, Barbuda, Antigua, Montserrat, Guadeloupe, Grande Terre, Dominica, Martinique, and Santa Lucia).

Field Museum Collection.—9: Virgin Islands (St. Croix, 1); Lesser Antilles (Antigua, 1; Mountains, Grande Terre, Guadeloupe, 1; Dominica, 1; Martinique, 2; Santa Lucia, 3).

Conover Collection. 17: Virgin Islands (St. John, 4; St. Thomas, 4; St. Croix, 4; Tortola, 4); Lesser Antilles (Guadeloupe, 1).

****Oreopeleia montana martinica* (Linnaeus).³ MARTINIQUE**
RUDDY QUAIL DOVE.

Columba martinica Linnaeus, *Syst. Nat.*, 12th ed., 1, p. 283, 1766—based on "Le Pigeon violet de la Martinique" Brisson, *Orn.*, 1, p. 129, pl. 12, fig. 1; Martinique (type in Réaumur Collection).

Columba cuprea Wagler, *Syst. Av.*, 1, fol. 16, sp. 76, 1827—based on Brisson, *Orn.*, 1, p. 129, pl. 12, fig. 1, and "Pigeon de la Martinique" Daubenton, *Pl. Enl.*, pl. 162; Martinique.

Geotrygon montana (not *Columba montana* Linnaeus) Lawrence, *Proc. U. S. Nat. Mus.*, 1, pp. 67, 196, 1878—Dominica and St. Vincent (habits, eggs); idem, *l.c.*, 1, pp. 360, 487, 1879—Martinique, Guadeloupe, Dominica, and St. Vincent; Lister, *Ibis*, 1880, p. 43—St. Vincent; Allen, *Bull. Nutt. Orn. Cl.*, 5, p. 169, 1880—Santa Lucia; Cory, *Ibis*, 1886, p. 473—St. Vincent; idem, *Auk*, 4, p. 96, 1887—Martinique; Selater, *Proc. Zool. Soc. Lond.*, 1889, p. 395—Santa Lucia; Cory, *Auk*, 8, p. 48, 1891—Guadeloupe; idem, *Cat. W. Ind. Bds.*, p. 97, 1892—part, Guadeloupe, Dominica, Martinique, Santa Lucia, and St. Vincent; Verrill, *Trans. Conn. Acad.*

¹ The five birds which we have seen from St. Croix and the eight from St. John and St. Thomas do not seem to differ from specimens from other islands of the Lesser Antilles.

² Possibly the records of *G. chrysia* from Porto Rico and Mona Island (cf. Wetmore, *Sci. Surv. Porto Rico & Virgin Is.*, 9, p. 404, 1927) belong to the present form.

³ *Oreopeleia montana martinica* (Linnaeus), as correctly pointed out by Bond, is rather a poorly segregated form averaging larger in size and darker in coloration. The status (and even the locality) of *G. m. digressa* is questionable. Birds from St. Vincent are definitely intermediate between *montana* and *martinica* both in size and coloring, and their reference to one rather than the other is largely a matter of personal opinion.

Sci. & Arts, 8, p. 324, 1892—Dominica (habits, nest, and eggs); Salvadori, Cat. Bds. Brit. Mus., 21, p. 567, 1893—part, spec. y'-f'', St. Vincent; Clark, Auk, 22, p. 262, 1905—part, St. Vincent and (?)St. Kitts (extirpated); idem, Proc. Bost. Soc. N. H., 32, pp. 263, 303, 1905—part, St. Vincent (supposed to be extinct).

Geotrygon martinica Salvadori, Cat. Bds. Brit. Mus., 21, p. 570, 1893—Dominica and Santa Lucia; Noble, Bull. Mus. Comp. Zool., 60, p. 375, 1916—Goyave, Guadeloupe.

(?)*Geotrygon martinica digressa* Bangs, Proc. Biol. Soc. Wash., 18, p. 153, 1905—Guadeloupe (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 166, 1930).

Oreopeleia martinica Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 476, 1916 (monog.); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 529, 1928—Dominica, St. Vincent, and Santa Lucia (nest and eggs); Peters, Bds. World, 3, p. 130, 1937 (range).

Oreopeleia montana martinica Bond, Auk, 49, p. 494, 1932 (crit.); Danforth, Monog. Univ. Puerto Rico, Ser. B, No. 3, p. 43, 1935—Santa Lucia; (?)idem, Trop. Agric., 13, p. — [Sep., p. 3], 1936—Nevis (sight record).

Range.—Islands of Guadeloupe, Dominica, Martinique, Santa Lucia, and St. Vincent (doubtfully recorded from Nevis; said to be extirpated on St. Kitts).

Field Museum Collection.—11: Lesser Antilles (unspecified, Guadeloupe, 2; Mountain, Guadeloupe, 1; Martinique, 3; Santa Lucia, 3; St. Vincent, 2).

Conover Collection.—1: Lesser Antilles (Santa Lucia, 1).

****Oreopeleia montana montana* (Linnaeus). RUDDY QUAIL DOVE.**

Columba montana Linnaeus, Syst. Nat., 10th ed., 1, p. 163, 1758—based on "The Mountain Partridge" Edwards, Nat. Hist. Bds., 3, p. 119, pl. 119, and Sloane, Voy. Jamaica, 2, p. 304, pl. 261, fig. 1, Jamaica; Wagler, Syst. Av., 1, fol. 16, spec. 75, 1827—Paraguay, Brazil, Cayenne, and Jamaica (descr.); Wied, Beitr. Naturg. Bras., 4, (2), p. 479, 1833—south-eastern Brazil (Cabo Frio, Mucuri River, Caravellas, Belmonte, Porto Seguro).

Peristera montana Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 744, "1848" [=1849]—woods of British Guiana; Léotaud, Ois. Trinidad, p. 375, 1866—Trinidad.

Geotrygon montana Gosse, Bds. Jamaica, p. 320, 1847—Jamaica (habits); Bonaparte, Consp. Gen. Av., 2, p. 72, 1857—Brazil and Paraguay (descr.); Gundlach and Cabanis, Journ. Orn., 4, p. 109, 1856—Cuba; Sclater, Proc. Zool. Soc. Lond., 24, p. 309, 1856—Córdoba, Vera Cruz; idem, l.c., 25, p. 19, 1857—Bogotá, Colombia; Sallé, l.c., p. 235, 1857—Santo Domingo; Sclater, l.c., 27, p. 368, 1859—Jalapa, Vera Cruz; idem, l.c., 1861, p. 80—Jamaica; Taylor, Ibis, 1864, p. 171—Puerto Rico (habits); Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 198—Rio Ucayali, Peru; iidem,

l.c., 1867, p. 591—upper Rio Negro and Pará, Brazil; *idem*, l.c., 1867, p. 753—Xeberos and Chyavetas, Peru; Lawrence, *Ann. Lyc. Nat. Hist. N. Y.*, 9, p. 135, 1868—Angostura, Costa Rica; Frantzius, *Journ. Orn.*, 17, p. 371, 1869—Orósi, Costa Rica; Sumichrast, *Mem. Bost. Soc. N. H.*, 1, p. 560, 1869—hot region of Vera Cruz; Reinhardt, *Vidensk. Medd. Naturhist. Foren.*, 1870, p. 58—Lagõa Santa, Minas Geraes; Salvin, *Proc. Zool. Soc. Lond.*, 1870, p. 217—Volcan de Chiriquí, Panama; Sclater and Salvin, l.c., 1873, p. 306—Peru (upper and lower Ucayali, Xeberos, Chyavetas, Chamicuros, Yurimaguas, Nauta); Taczanowski, l.c., 1874, p. 556—Monterico, Peru; Berlepsch, *Journ. Orn.*, 21, p. 248, 1873—Blumenau, Santa Catharina; Gundlach, l.c., 22, p. 294, 1874—Cuba (habits); *idem*, l.c., 26, pp. 161, 1884, 1878—Puerto Rico (habits); *idem*, *Anal. Soc. Esp. Hist. Nat.*, 7, p. 348, 1878—Puerto Rico; Boucard, *Proc. Zool. Soc. Lond.*, 1878, p. 43—San Carlos, Costa Rica; Sclater and Salvin, l.c., 1879, p. 640—“Apollo” and Tilotilo, Bolivia; Lawrence, *Proc. U. S. Nat. Mus.*, 1, p. 276, 1879—Grenada; Sumichrast, *La Naturaleza*, 5, p. 232, 1881—Potrero and Chiquihuite, Vera Cruz; Taczanowski, *Proc. Zool. Soc. Lond.*, 1882, p. 48—Cocochó and Yurimaguas, Peru; Cory, *Bds. Haiti and San Dom.*, p. 132, 1884—Puerto Plata and Samaná, Hispaniola; Berlepsch and Ihering, *Zeits. Ges. Orn.*, 2, p. 178, 1885—Taquara and Arroio Grande, Rio Grande do Sul; Taczanowski, *Orn. Pér.*, 3, p. 260, 1886—Peruvian localities; Salvin, *Ibis*, 1886, p. 174—British Guiana (Bartica Grove, Camacusa, Merumé Mountains); Cory, *Auk*, 4, p. 118, 1887 (descr.); Wells, *Proc. U. S. Nat. Mus.*, 9, p. 625, 1887—Grenada; Zeledón, *Anal. Mus. Nac. Costa Rica*, 1, p. 127, 1887—Angostura and Birris de Cartago, Costa Rica; Scott, *Auk*, 6, p. 160, 1889—Key West, Florida (Dec. 8, 1888); Allen, *Bull. Amer. Mus. N. H.*, 2, p. 106, 1889—lower Beni, Bolivia; Chapman and Riker, *Auk*, 8, p. 162, 1891—Diamantina, Rio Tapajóz, Brazil; Scott, *Auk*, 9, p. 124, 1892—Jamaica (Stony Hill, Priestman’s River); Cory, *Cat. W. Ind. Bds.*, p. 97, 1892—Cuba, Isle of Pines, Jamaica, Hispaniola, Puerto Rico, St. Croix, and Grenada; Chapman, *Bull. Amer. Mus. N. H.*, 4, p. 293, 1892—San Pablo, Cuba (habits); Allen, l.c., 5, p. 149, 1893—Chapada, Matto Grosso; Salvadori, *Cat. Bds. Brit. Mus.*, 21, p. 567, 1893—part, Vera Cruz (Vega del Casadero), Yucatan (Temax), British Honduras (Orange Walk), Guatemala (Choctum, Vera Paz; Savanna Grande), Nicaragua (Chinandega, La Libertad), Panama (southern slope of Volcan de Chiriquí, San Pablo), Ecuador (Balzar, Sarayacu), Bolivia (“Apollo”), Peru (Chamicuros), Brazil (upper Rio Negro, Pará, Bahia), British Guiana (Bartica Grove), Cuba (San Cristóbal), Jamaica, San Domingo (La Vega, Puerto Plata), and Grenada; Cherrie, *Field Columb. Mus., Orn. Ser.*, 1, p. 24, 1896—Dominican Republic; Underwood, *Ibis*, 1896, p. 447—Volcan de Miravalles, Costa Rica; Ihering, *Anuario Est. Rio Grande do Sul*, 16, p. 146, 1899—Mundo Novo, Rio Grande do Sul; *idem*, *Rev. Mus. Paul.*, 3, p. 404, 1899—Iguapé, São Paulo; *idem*, l.c., 4, p. 163, 1900—Nova Friburgo and Cantagallo, Rio de Janeiro; Salvadori and Festa, *Boll. Mus. Zool. Torino*, 15, No. 368, p. 36, 1900—Zamora, Rio Santiago, and Rio Peripa, Ecuador; Allen, *Bull. Amer. Mus. N. H.*, 13, p. 128, 1900—Bonda, Santa Marta, Colombia; Bangs, *Auk*, 18, p. 358, 1901—Divalá, Chiriquí; Salvin and Godman, *Biol. Centr.-Amer., Aves*, 3, p. 265, 1902—southeastern Mexico to Panama;

- Bangs, Proc. New Engl. Zool. Cl., 3, p. 23, 1902—Boquete, Chiriquí; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—Tarma, Junín, Peru; Bowditch, Auk, 19, p. 361, 1902—Vieques (Dec. 30, 1899), Puerto Rico (Aguadilla), and Mona Island; Hartert, Nov. Zool., 9, p. 603, 1902—Paramba, Ecuador; Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará; Clark, Proc. Bost. Soc. N. H., 32, pp. 263, 306, 1905—part, Grenada; Bangs and Zappey, Amer. Natur., 39, p. 197, 1905—La Vega, Pasadita, and Callebón, Isle of Pines; Miller, Bull. Amer. Mus. N. H., 21, p. 343, 1905—Arroyo de Limones, Sinaloa; Berlepsch and Stolzmann, Ornith., 13, p. 125, 1906—Rio Cadena and Sañaca, Marcapata, Peru; Bangs, Auk, 24, p. 292, 1907—Boruca and El Pózo de Térraba, Costa Rica; Ihering, Cat. Faun. Braz., 1, p. 25, 1907—Iguapé, São Paulo; Hellmayr, Nov. Zool., 14, p. 407, 1907—Humaytá, Rio Madeira; Berlepsch, l.c., 15, p. 296, 1908—Cayenne; Penard, Vog. Guyana, 1, p. 346, 1908—Surinam; Snethlage, Journ. Orn., 56, p. 22, 1908—Monte Verde, Rio Purús; Ménégau, Rev. Franç. d'Orn., 1, p. 30, 1909—Figuabas and Guantánamo, Cuba; Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 357, 1909—Santo Domingo (habits); Hellmayr, Nov. Zool., 17, p. 417, 1910—Allianca and Calama, Rio Madeira; Carriker, Ann. Carnegie Mus., 6, p. 404, 1910—Costa Rica (Pózo Azul, Buenos Aires, Tenorio, El General, Cerro de Santa María, El Pózo de Térraba, Boruca); Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Equat., 9, p. B. 8, 1911—Pachijal, Ecuador; Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Pará and Rio Capim, Pará; Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Alto Paraná; Dabbene, Bol. Soc. Physic., 1, p. 255, 1913—Alto Paraná; Bertoni, Faun. Parag., p. 36, 1914—Alto Paraná, Paraguay; Snethlage, Bol. Mus. Goeldi, 8, p. 68, 1914—Pará, Mocajutuba, Ananindeua, Santa Izabel, Benevides, Peixe-Boi, Rio Tocantins (Cametá), Rio Curuá (Malocca do Manuelsinho), Rio Tapajóz (Boim), and Obidos, Brazil; Wetmore, Bull. U. S. Dept. Agr., 326, p. 48, 1916—Puerto Rico; idem, Auk, 33, p. 411, 1916—Vieques; Todd, Ann. Carnegie Mus., 10, p. 221, 1916—Isle of Pines; Chubb, Bds. Brit. Guiana, 1, p. 50, 1916 (many localities); Kaempfer, Journ. Orn., 72, p. 184, 1924—Cotuí, Hispaniola.
- Oropelia montana* Burmeister, Syst. Uebers. Th. Bras., 3, p. 206, 1856—Nova Friburgo, Rio de Janeiro; Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo, Rio de Janeiro.
- Geotrygon montanus* Sclater and Salvin, Ibis, 1860, p. 401—Vera Paz, Guatemala.
- Oreopeleia montana* Pelzeln, Orn. Bras., 3, p. 279, 1870—São Paulo (Matto-dentro, Ypanemá), Paraná (Murungaba), Matto Grosso (Cidade de Matto Grosso), Rio Madeira (Borba), Manáos, Rio Negro (Marabitanas), and Pará, Brazil; Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 478, 1916 (monog., full bibliog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 213, 1917—Las Lomitas, San Antonio, Puerto Valdivia, La Candela, Andalucía, and Florencia, Colombia; Peters, Bull. Mus. Comp. Zool., 61, p. 406, 1917—Los Toritos, Dominican Republic; Bangs and Penard, l.c., 62, p. 46, 1918—vicinity of Paramaribo, Surinam; Chapman, Bull. U. S. Nat. Mus., 117, p. 47, 1921—Rio Cosireni, Urubamba, Peru; Todd and Carriker, Ann. Carnegie Mus., 14, p. 191, 1922—Don Amó, La Tigrera, Las Vegas, and Don Diego, Santa Marta, Colombia; Lönnberg and Rendahl,

Ark. Zool., 14, No. 25, p. 19, 1922—near Gualea and Nanegal, Ecuador; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 37, 1922—La Azulita, Mérida, Venezuela; Barbour, Mem. Nutt. Orn. Cl., 6, p. 74, 1923—Cuba; Hollister, Auk, 42, p. 130, 1925—Key West, Florida (about May, 1923); Chapman, Bull. Amer. Mus. N. H., 55, p. 171, 1926—Ecuador (Esmeraldas, Chone, Rio de Oro, Puente de Chimbo, Santa Rosa, Rio Suno, below San José, and Baeza); Wetmore, Sci. Surv. Porto Rico & Virgin Is., 9, p. 402, 1927—Mona, Porto Rico, Vieques, St. Croix, and St. Thomas; Berlioz, Bull. Mus. Hist. Nat. Paris, 33, p. 356, 1927—Rio Suno, Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 151, 1928—Rio Guamá, Pará; Bond, l.c., p. 520, 1928—Haiti; Danforth, Auk, 45, p. 484, 1928—Lumsden, Jamaica; idem, Auk, 46, p. 366, 1929—San Juan, Bonao, and Gonave, Hispaniola; Austin, Bull. Mus. Comp. Zool., 69, p. 371, 1929—Augustine, British Honduras; Peters, l.c., 69, p. 407, 1929—Lancetilla, Honduras; idem, l.c., 71, p. 299, 1931—Changuinola, Boquete Trail, and Guábo, Almirante, Panama; Danforth, Journ. Dept. Agric. Puerto Rico, 15, p. 69, 1931—Puerto Rico; Griscom, Bull. Amer. Mus. N. H., 64, p. 119, 1932—Secanquim, Guatemala; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 203, 1931—Hispaniola; Griscom, Bull. Mus. Comp. Zool., 72, p. 323, 1932—Permé and Obaldia, Panama; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 307, 1932—Lancetilla, Honduras; Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 22, 1932—Baraderes, Haiti; idem and Lincoln, l.c., 82, art. 25, p. 34, 1933—Geffard, Haiti; Roberts, Trop. Agric., 11, p. 92, 1934—head of Caura Valley, Trinidad; Van Tyne, Misc. Publ., Mus. Zool. Univ. Mich., 27, p. 13, 1935—Uaxactun, Petén, Guatemala; Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Panama; Belcher and Smooker, Ibis, 1936, p. 7—Morne Bleue and Diego Martin, Trinidad (nest and eggs descr.); Griscom, Auk, 54, p. 193, 1937—Jaleaca, Guerrero; Peters, Bds. World, 3, p. 130, 1937 (range).

Starnoenas montana Schlegel, Mus. Pays-Bas, Columbae, p. 165, 1873—Surinam and Brazil.

Starnoenas cuprea (not *Columba cuprea* Wagler) Schlegel, Mus. Pays-Bas, Columbae, p. 165, 1873—Marabitanas (Rio Negro), Demerara, and Surinam.

Oreopeleia montana montana Naumburg, Bull. Amer. Mus. N. H., 60, p. 71, 1830—Matto Grosso.

Range.—Greater Antilles (islands of Jamaica, Cuba, Isle of Pines, Hispaniola, Puerto Rico, Mona, Vieques, St. Thomas, St. Croix); southern Mexico, from Vera Cruz and southern Sinaloa southwards through Central America to Panama, Ecuador, Peru, and Bolivia, and east to Venezuela, the island of Trinidad, the Guianas, and throughout Brazil to northern Paraguay; also on Grenada, Lesser Antilles;¹ accidental on Florida keys (Key West, Dec. 8, 1888; May, 1923).

¹ Probably also found in Tobago, though no authentic record exists for that island.

Field Museum Collection.—82: Jamaica (unspecified, 1; Priestman's River, Surrey, 4); Dominican Republic (Aguacate, La Vega, 5; Almercen, La Vega, 1; La Vega, La Vega, 1; Puerto Plata, Puerto Plata, 33; Samaná, Samaná, 10; Catarrey, Santo Domingo, 13); Porto Rico (unspecified, 1); Lesser Antilles (Grenada, 4); Costa Rica (El Pózo, Puntarenas, 1; Puerto Jiménez, Puntarenas, 1; Boruca, Puntarenas, 1); Nicaragua (San Gerónimo, Chinandega, 1); Colombia (Cauca, Cauca, 1); British Guiana (Demerara River, 1; Middle Base Camp, Itabu Creek, upper New River, 1); Brazil (Utinga Matta, Pará, 2).

Conover Collection.—73: Cuba (Guantánamo, 1; Bayate, Pinar del Rio, 2; Santo Tomás, Zapata Swamp, Santa Clara, 1; Artemisa, Pinar del Rio, 1; Caraballo, Pinar del Rio, 1); Guatemala (Escobas, Yzabal, 1); Honduras (Monte Redondo, Tegucigalpa, 1); Costa Rica (El Pózo, Puntarenas, 1; Golfo Dulce, Puntarenas, 2; Volcan de Oso, 2; Oja Ancha, Nicoya, 5; Alto de Jabillo, Pirris, 2); Panama (Permé, Darien, 1); Colombia (Munchique, El Tambo, Cauca, 7); Ecuador (Concepción, 5; Pacto, 2; Gualea, 1; Ouca-Yaca, Loreto, 1; Sara-Yaco, Rio Bobonaza, 1; Rio Blanco, Esmeraldas, 1; Rio San Antonio, Sur, Province de los Rios, 1; head of Rio Tigre, Napo-Pastaza, 4); Peru (Puerto Bermúdez, Junín, 1); Bolivia (Buenavista, Santa Cruz, 1); Venezuela (La Azulita, Mérida, 3); British Guiana (Mazaruni River, 1); Brazil (Lago Cuipeua, near Obidos, 2; Serraria Cabral, Rio Acará, 1; Tomé-assú, Rio Acará, 3; Boim, Rio Tapajóz, 4; Caxiricatuba, Rio Tapajóz, 4; Tauary, Rio Tapajóz, 2; Labrea, Rio Purús, 2; Rio Manacapurú, Amazonas, 2); Paraguay (Santa Barbara, 2; Horqueta, 1).

****Oreopelela violacea violacea* (Temminck). VIOLACEOUS QUAIL DOVE.**

Columba violacea Temminck, in Temminck and Knip, Les Pigeons, 1, Les Colombes, p. 67, pl. 29, 1810—"le Nouveau Monde" (type in Paris Museum);¹ idem, Hist. Nat. Pige. Gall., 1, pp. 260, 470, 1813—"in America Australi" (descr.); Wagler, Syst. Av., 1, fol. 16, spec. 72, 1827 (descr. spec. typ. in Mus. Paris).

Geotrygon violacea Bonaparte, Consp. Gen. Av., 2, p. 72, 1857—Brazil (descr.); Sclater and Salvin, Exot. Orn., p. 79, 1867—Bahia, Brazil; Salvadori, Cat.

¹ Temminck states expressly that the only specimen he had an occasion of examining was in the Paris Museum. Schlegel (Mus. Pays-Bas, 4, No. 35, p. 165, 1873) is, therefore, mistaken in listing a bird from "Surinam" in the Leiden Museum as Temminck's "type." According to Bonaparte (Compt. Rend. Acad. Sci. Paris, 43, p. 100, 1855), the specimen in the Paris Museum was forwarded by the traveler Maugé from the island of St. Thomas, in the West Indies. As this is clearly an erroneous locality, we suggest Rio de Janeiro, Brazil, as a likely terra typica.

Bds. Brit. Mus., 21, p. 565, 1893—part, spec. a-e, Bahia, Brazil; Ihering, Rev. Mus. Paul., 3, p. 404, 1899—São Paulo; idem, l.c., 4, p. 163, 1900—Cantagallo, Rio de Janeiro; Bertoni, Anal. Cient. Parag., 1, No. 3, p. 10, 1904—Puerto Bertoni and Djaguarasapá, Alto Paraná, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 25, 1907—São Paulo; Penard, Vog. Guyana, 1, p. 346, 1908—"Surinam" (ex Schlegel); Chubb, Ibis, 1910, p. 64—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 410, 1910—Alto Paraná, Paraguay; idem, Bol. Soc. Physis, 1, p. 254, 1913—Paraguay; Bertoni, Anal. Soc. Cient. Arg., 75, p. 69, 1913—Alto Paraná; idem, Faun. Parag., p. 36, 1914—Alto Paraná; Snethlage, Bol. Mus. Goeldi, 8, p. 67, 1914—part, eastern Brazil; Lima, Rev. Mus. Paul., 12, (2), p. 96, 1920—southern Bahia [= Ilhéos].

Oreopeleia violacea Pelzel, Orn. Bras., 3, p. 279, 1870—Ypanemá, São Paulo; Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 37, 1922—La Azulita, Mérida, Venezuela.

Starnoenas violacea Schlegel, Mus. Pays-Bas, 4, Columbæ, p. 165, 1873—Surinam.

Oreopelia violacea Cabanis, Journ. Orn., 22, p. 230, 1874—Cantagallo, Rio de Janeiro.

Geotrygon violacea violacea Hellmayr, Nov. Zool., 13, p. 384, 1906—Pará (Santo Antonio do Prata), Minas Geraes (Rio Jordão), and São Paulo (Victoria); idem, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 97, 1912—Santo Antonio do Prata, Pará.

Oreopeleia violacea violacea Dabbene, El Hornero, 1, p. 260, 1919—Santa Ana, Misiones; Pinto, Rev. Mus. Paul., 19, p. 69, 1935—Serra do Palhão, Rio Jucurucú, and Ilhéos, Bahia; Peters, Bds. World, 3, p. 130, 1937 (range).

Oreopelia violacea violacea Sztolerman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 117, 1926—Vermelho, Paraná.

Range.—Eastern Brazil, in states of Pará (Santo Antonio do Prata), Bahia (Serra do Palhão, Rio Jucurucú, Ilhéos), Minas Geraes (Rio Jordão, Prov. Araguay), Rio de Janeiro (Cantagallo), São Paulo (Victoria, Ypanemá), Paraná (Vermelho), and the adjacent parts of Argentina (Santa Ana, Misiones), Bolivia (Buena-vista, Santa Cruz), and Paraguay (Sapucay; Alto Paraná); also in Surinam (fide Schlegel); (?) northern Venezuela (La Azulita, Mérida; Paria Peninsula).¹

Conover Collection.—6: Venezuela (La Azulita, Mérida, 1); Brazil (Victoria, São Paulo, 2); Paraguay (Santa Barbara, 2); Bolivia (Buena-vista, Santa Cruz, 1).

¹ The subspecific status of Venezuelan birds is in doubt. They may be more properly referable to *O. v. albiventer*.

Additional material examined.—Brazil: Santo Antonio do Prata, Pará, 1; Bahia, 2; Rio de Janeiro, 1; Ypanemá, São Paulo, 3; Victoria, São Paulo, 4; Rio Jordão, Minas Geraes, 1.—Paraguay: Sapucay, 2.

***Oreopeleia violacea albiventer (Lawrence).¹ WHITE-BELLIED
VIOLACEOUS QUAIL DOVE.**

Geotrygon albiventer Lawrence, Proc. Acad. Nat. Sci. Phila., 1865, p. 108—Lion Hill Station, Panama Railroad (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); idem, Ann. Lyc. Nat. Hist. N. Y., 9, p. 135, 1868—Angostura, Costa Rica; Frantz, Journ. Orn., 17, p. 371, 1869—Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 265, 1902—Costa Rica (Angostura, Miravalles) and Panama (Lion Hill); Bangs, Proc. Biol. Soc. Wash., 22, p. 30, 1909—Tenorio (Guanacaste), Costa Rica.

Geotrygon violacea (not *Columba violacea* Temminck) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 477, 1862—Lion Hill, Panama (descr.); Salvadori, Cat. Bds. Brit. Mus., 21, p. 565, 1893—part, spec. f, Panama; Underwood, Ibis, 1896, p. 447—Miravalles, Costa Rica (habits).

Geotrygon violacea albiventer Hellmayr, Nov. Zool., 13, p. 384 (in text), 1906—Miravalles (crit.); Carriker, Ann. Carnegie Mus., 6, p. 404, 1910—Miravalles and Tenorio, Costa Rica.

Oreopeleia violacea albiventer Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 484, 1916—Nicaragua (Peña Blanca), Costa Rica, Panama (Lion Hill, Cerro Azul), and Colombia (Cacagualito, Don Diego); Todd and Carriker, Ann. Carnegie Mus., 14, p. 190, 1922—Cacagualito and Don Diego, Santa Marta; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 209, 1932—Great Falls, Pis Pis River, Nicaragua; Griscom, Bull. Mus. Comp. Zool., 78, p. 311, 1935—Canal Zone and Darien, Panama; Peters, Bds. World, 3, p. 130, 1937 (range).

Range.—Southern Central America, from Nicaragua (Peña Blanca; Great Falls, Pis Pis River) through Costa Rica (Tenorio, Miravalles, Angostura, Oja Ancha) and Panama (Lion Hill, Cerro Azul) to northern Colombia (Cacagualito and Don Diego, Santa Marta).

Conover Collection.—3: Costa Rica (Oja Ancha, Nicoya, 1); Panama (Port Obaldia, Darien, 2).

***Oreopeleia veraguensis (Lawrence). VERAGUA QUAIL DOVE.**

Geotrygon veraguensis Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 349, 1867—Veragua (type in coll. of J. K. Merritt, now in the American Museum of Natural History, New York); Salvin, Ibis, 1874, p. 328, pl. 12 (fig. of type)—type stated to be from El Mineral de Veraguas, southeast of Chiriquí Lagoon (crit.); Salvadori, Cat. Bds. Brit. Mus., 21, p. 575, 1893—Montaña del Vermejo, Veragua, and Agua Dulce, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 267, 1902—Costa Rica (Talamanca) and Panama

¹ *Oreopeleia violacea albiventer* (Lawrence) differs from the nominate race by having the forehead, cheeks, malar region, and auriculars buff pink or ecru-drab tinged with pinkish (instead of whitish to pale grayish) and by lacking the bluish gray color on the crown.

Five additional specimens from Miravalles, Costa Rica, examined by Hellmayr.

(Agua Dulce, Veragua, Montaña del Vermejo); Carriker, Ann. Carnegie Mus., 6, p. 405, 1910—Costa Rica (Reventazón, Cuábre, El Hogar).

Geotrygon rufiventris Lawrence, Ann. Lyc. Nat. Hist. N. Y., 11, p. 90, 1875—Talamanca, Costa Rica (type in U. S. National Museum); Rowley, Orn. Misc., 3, p. 77, pl. 92, 1878—Agua Dulce, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, pl. 70, 1902.

Geotrygon veraguensis cachaviensis Hartert, Nov. Zool., 5, p. 504, 1898—Cachaví, Prov. Esmeraldas, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York, examined); idem, l.c., 9, p. 603, 1902—San Javier and Rio "Japayo" [=Sapáyo], Ecuador (crit.); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1206—Noanamá, Colombia (crit.).

Oreopeleia veraguensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 486, 1916—eastern Costa Rica to Panama (monog.); Chapman, Bull. Amer. Mus. N. H., 36, p. 214, 1917—Puerto Valdivia (lower Cauca), Baudo, Andagueda, San José, and Barbacoas (Nariño), Colombia (crit.); idem, l.c., 55, p. 172, 1926—Ecuador; Griscom, Bull. Mus. Comp. Zool., 69, p. 154, 1929—El Tigre (Rio Cupe) and Tuyra Valley, Darien; idem, l.c., 72, p. 323, 1932—Permé, Obaldía, and Ranchon, Panama; idem, l.c., 78, p. 312, 1935—Veraguas and Darien; Peters, Bds. World, 3, p. 129, 1937 (range).

Oreopelia veraguensis Peters, Bull. Mus. Comp. Zool., 71, p. 299, 1931—Cricamola, Almirante, Panama.

Range.—Tropical zone of Caribbean Costa Rica south through Panama and Pacific Colombia (east to the lower Cauca, Antioquia) to northwestern Ecuador (Prov. Esmeraldas).¹

Field Museum Collection.—1: Colombia (Baudo, Chocó, 1).

Conover Collection.—16: Panama (Permé, Darien, 3; Port Obaldía, Darien, 6; Ranchon, Darien, 3; Cricamola, Bocas del Toro, 1); Colombia (Malagita, Chocó, 1); Ecuador (Rio Sapáyo, 1; Charco Redondo, 1).

****Oreopeleia costaricensis* (Lawrence). COSTA RICAN QUAIL DOVE.**

Geotrygon costaricensis Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 136, 1868—Costa Rica=Las Cruces de la Candelaria (type in U. S. National Museum); Frantzius, Journ. Orn., 17, p. 371, 1869—Las Cruces de la Candelaria, Costa Rica; Rowley, Orn. Misc., 3, p. 43, pl. 87, 1877—Candelaria Mountains, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 43—Cerro de la Candelaria, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 5, pp. 498, 502, 1883—Volcan de Irazú and "near San José," Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—Rancho Redondo, Costa

¹ Birds from Pacific Colombia and Ecuador (*cachaviensis*) average slightly darker both above and below, but, in agreement with Chapman, we consider the variation too insignificant to justify subdivision.

Additional material examined.—Costa Rica, 2.—Panama, 3.—Colombia: Noanamá, 1.—Ecuador, Prov. Esmeraldas: Cachaví, 1; San Javier, 3.

Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 577, 1893—La Candelaria, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 24, 1902—Boquete and Volcan de Chiriquí, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 267, 1902—Costa Rica ("San José," Las Cruces de la Candelaria, Volcan de Irazú, Azahar de Cartago, Estrella de Cartago, Turrialba, Carrillo, Rancho Redondo); Bangs, Proc. Biol. Soc. Wash., 19, p. 102, 1906—Volcan de Chiriquí (crit.); Carriker, Ann. Carnegie Mus., 6, p. 406, 1910—Costa Rica (Burgos, La Estrella and Volcan de Turrialba, Cachí, Irazú, Escazú, Cariblanco de Sarapiquí, Cordillera de Talamanca).

Oreopeleia costaricensis Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 487, 1916—Costa Rica and western Panama (monog.); Griscom, Bull. Mus. Comp. Zool., 78, p. 312, 1935—Chiriquí and Veraguas; Peters, Bds. World, 3, p. 129, 1937 (range).

Geotrygon lawrencii (not of Salvin) Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 266, 1902—part, Boquete and Volcan de Chiriquí.

Range.—Subtropical zone (rain forest) of Costa Rica and western Panama, east to Veraguas.

Field Museum Collection.—2: Costa Rica (Cartago, Cartago, 1; Irazú, Cartago, 1).

Conover Collection.—7: Costa Rica (Santa Cruz de Turrialba, 1; Volcan Turrialba, 2; San Joaquin de Dota, 3; Las Vueltas, 1).

***Oreopeleia lawrencii* (Salvin).¹ LAWRENCE'S QUAIL DOVE.**

Geotrygon lawrencii Salvin, Ibis, (3), 4, p. 329, 1874—Calóbre, Veraguas (type in Salvin-Godman Collection, now in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 266, pl. 69, 1902—part, Santa Fé and Calóbre, Veraguas; Carriker, Ann. Carnegie Mus., 4, p. 302, 1908—Carrillo, Costa Rica; (?)Bangs, Proc. Biol. Soc. Wash., 22, p. 30, 1909—Tenorio, Costa Rica.

Geotrygon veraguensis (not of Lawrence) Salvin, Proc. Zool. Soc. Lond., 1867, p. 159—"Santiago de Veraguas" (young).

Geotrygon lawrencei Salvadori, Cat. Bds. Brit. Mus., 21, p. 576, 1893—Calóbre, Veraguas; Carriker, Ann. Carnegie Mus., 6, p. 406, 1910—Cariblanco de Sarapiquí, Carrillo, and (?)Tenorio, Costa Rica.

Oreopeleia lawrencei Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 489, 1916—Costa Rica (Cariblanco de Sarapiquí, Carrillo, ?Tenorio) and Veraguas (Calóbre, Santa Fé).

Oreopelia lawrencii lawrencii Peters, Bull. Mus. Comp. Zool., 71, p. 299, 1931—Boquete Trail, Almirante, Panama.

¹ *Oreopeleia lawrencii* (Salvin) in general appearance is so much like *O. costaricensis* as to suggest conspecific relationship. Both are, however, stated to occur together in certain parts of Caribbean Costa Rica (e.g., at Cariblanco de Sarapiquí and Carrillo), and further information about their breeding ranges seems, therefore, imperative before any final conclusion can be reached.

(?)*Oreopelia lawrencii lentipes* Peters, Bull. Mus. Comp. Zool., 71, p. 300, 1931—Tenorio, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.).¹

Oreopeleia lawrencei lawrencei Griscom, Bull. Mus. Comp. Zool., 78, p. 312, 1935—Caribbean slope of western Panama to Veraguas.

Oreopeleia lawrencii lentipes Peters, Bds. World, 3, p. 129, 1937 (range).

Oreopeleia lawrencii lawrencii Peters, Bds. World, 3, p. 129, 1937 (range).

Range.—Caribbean slope of western Panama (Veraguas to Almirante Bay) and Costa Rica (Guácimo, Carrillo, Cariblanco de Sarapiquí; also recorded from Tenorio, Guanacaste).²

***Oreopeleia goldmani* (Nelson).³ MOUNT PIRRI QUAIL DOVE.**

Geotrygon goldmani Nelson, Smiths. Misc. Coll., 60, No. 3, p. 2, 1912—Mount Pirri, eastern Panama (type in U. S. National Museum).

Oreopeleia goldmani Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 490, 1916—Mount Pirri and Cana (monog.); Griscom, Bull. Mus. Comp. Zool., 78, p. 312, 1935—eastern Darien; Peters, Bds. World, 3, p. 129, 1937 (range).

Range.—Subtropical zone of eastern Darien, Panama (Mount Pirri, Cana).

***Oreopeleia linearis rubida* (Nelson). GUERRERO WHITE-FACED QUAIL DOVE.**

Geotrygon albifacies rubida Nelson, Proc. Biol. Soc. Wash., 16, p. 151, 1903 Omilteme, Guerrero, Mexico (type in U. S. National Museum).

Geotrygon albifacies (not of Sclater) Salvadori, Cat. Bds. Brit. Mus., 21, p. 581, 1893—part, spec. o, Chilpancingo, Guerrero; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 268, 1902—part, Chilpancingo.

¹ This form is described as being much paler (upper interscapular region light brownish olive; breast lighter and purer gray, washed with greenish only on the sides) and slightly larger (wing of males, 144–146, against 137–142; tail, 143 against 139–141). Though principally basing it on two males from Tenorio, Guanacaste, the author refers to it also a female from Cariblanco de Sarapiquí, situated in the foothills on the northern slope of the Volcan de Póas, hence on the Caribbean side, while an immature male from Guácimo, a place farther east in the same faunal region, is pronounced to be typical *lawrencii*. This can hardly be correct. Either the birds from Caribbean Costa Rica are all *lawrencii*, leaving *lentipes* restricted to Guanacaste, or the supposed color-differences, which obviously are not greater than those observed in the allied *O. veraguensis*, are individual rather than racial. It should also be added that the regular occurrence on the Pacific side needs confirmation, this quail dove being otherwise strictly confined to the Caribbean slope of the Cordilleras.

² Wetmore (Proc. Biol. Soc. Wash., 54, p. 205, Dec. 8, 1941) has very recently described *O. l. carrikieri* from Volcan San Martín, Sierra de Tuxtla, Veracruz, Mexico (type in U. S. National Museum). Said to be paler even than *lentipes*.

³ *Oreopeleia goldmani* (Nelson): "Somewhat resembling *O. lawrencii*, but pileum and nape deep russet brown (paler on forehead); broad malar-suborbital stripe buff instead of white; hind neck brown instead of grayish green, and upper parts (except back) browner. Wing, 139–145; tail, 81–90; bill, 13–15." (Ridgway, l.c.)

We are not acquainted with this quail dove.

Oreopeleia albifacies rubida Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 495, 1916—State of Guerrero (monog.); Griscom, Auk, 54, p. 193, 1937—Omitlame, Guerrero; Peters, Bds. World, 3, p. 131, 1937 (range).

Range.—Subtropical zone of southwestern Mexico, in State of Guerrero (Omitlame, Chilpancingo).

****Oreopeleia linearis albifacies* (Sclater). WHITE-FACED QUAIL DOVE.**

Geotrygon albifacies Slater,¹ Proc. Zool. Soc. Lond., 26, p. 98, 1858—Jalapa, Vera Cruz, Mexico (type in coll. of J. Verreaux); idem, l.c., 27, pp. 368, 391, 1859—vicinity of Jalapa, Vera Cruz, and Latani, Oaxaca, Mexico; idem and Salvin, Ibis, 1860, p. 401—Vera Paz, Guatemala; idem, Exot. Orn., p. 124, 1868—part, Mexico; Sumichrast, La Naturaleza, 5, p. 232, 1881—Córdoba and Orizaba, Vera Cruz; Salvadori, Cat. Bds. Brit. Mus., 21, p. 581, 1893—part, spec. a-n, d', e', Vera Cruz, Mexico (Jalapa, Coatepec, Misantla), and Guatemala (Choctum, Vera Paz); Lantz, Trans. Kans. Acad. Sci., 16, p. 219, 1899—Coatepec, Vera Cruz; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 268, 1902—part, Vera Cruz (Mirador, Córdoba, Orizaba, Jalapa, Coatepec, Cuesta de Misantla), Oaxaca (Latani), and Guatemala (Choctum, Verapaz, Sierra de las Minas).

Geotrygon chiriquensis (not of Slater, 1856) Slater, Proc. Zool. Soc. Lond., 25, p. 206, 1857—Jalapa; idem and Salvin, Exot. Orn., p. 77, 1867—part, Jalapa.

Oreopeleia albifacies albifacies Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 493, 1916—part, Mexico (states of Vera Cruz, Oaxaca, and Chiapas) and Guatemala (Choctum, Verapaz); Griscom, Ibis, 1935, pp. 549, 812—Verapaz and Sierra del las Minas, Guatemala; Peters, Bds. World, 3, p. 131, 1937 (range); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 11, p. 362, 1939—Santa Rosa, Comitán, Chiapas.

Oreopeleia albifacies albifacies Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 307, 1932—San Juancito, Honduras.

Range.—Subtropical zone of southeastern Mexico, in states of Vera Cruz, Oaxaca (Latani, Totontepec, Mount Zempoaltepec), and Chiapas (Tumbalá, Santa Rosa), south through northern Guatemala (Alta Verapaz) to extreme northwestern Honduras.²

Field Museum Collection.—1: Honduras (mountain camp near San Pedro de Sula, Cortes, 1).

¹ *Peristera albifacies* G. R. Gray (List Spec. Bds. Brit. Mus., 4, p. 55, 1856) as well as *Peristera mexicana* G. R. Gray (List Spec. Bds. Brit. Mus., 3, p. 15, 1844) are nomina nuda. The so-called "type" in the British Museum, therefore, has no claim to this dignity.

² Birds from Alta Verapaz, Guatemala, agree with others from Jalapa, and a single female from Volcan de Puca, in western Honduras, examined by the senior author cannot be separated either.

Twenty additional specimens from Mexico (Vera Cruz and Chiapas) and Guatemala (Polychic River) examined.

****Oreopeleia linearis anthonyi* Griscom.¹ ANTHONY'S WHITE-FACED QUAIL DOVE.**

Oreopeleia albifacies anthonyi Griscom, Amer. Mus. Nov., 379, p. 4, 1929—San Lucas [=Toliman], Pacific Guatemala (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 64, p. 119, 1932—San Lucas; idem, Ibis, 1935, p. 549 (in text)—Pacific Cordillera of Guatemala and southern Chiapas; Peters, Bds. World, 3, p. 131, 1937 (range).

Geotrygon albifacies (not of Sclater) Sclater and Salvin, Exot. Orn., p. 124, 1868—part, Guatemala; Salvadori, Cat. Bds. Brit. Mus., 21, p. 581, 1893—part, spec. q-c', Guatemala (Rio de la Cuesta, San Marcos; El Rincon, San Marcos; San Martín; Atitlan; Savanna Grande; Volcan de Fuego); Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 268, 1902—part, Guatemala (same localities).

Geotrygon chiriquensis (not of Sclater) Sclater and Salvin, Exot. Orn., p. 77, pl. 39, 1867—part, Savanna Grande, Guatemala.

Oreopeleia albifacies albifacies Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 493, 1916—part, Pacific Guatemala (Rio de la Cuesta and El Rincon, San Marcos; San Martín, Atitlan; Savanna Grande, Volcan de Fuego).

Range.—Subtropical zone of the Pacific Cordillera of Guatemala and the adjacent parts of southern Chiapas.

Field Museum Collection.—3: Guatemala (Volcan Tajumulco, San Marcos, 3).

****Oreopeleia linearis silvestris* Dickey and van Rossem.² SALVADOR WHITE-FACED QUAIL DOVE.**

Oreopeleia albifacies silvestris Dickey and van Rossem, Proc. Biol. Soc. Wash., 41, p. 130, 1928—Cerro Los Naranjos, Volcan Santa Ana, El Salvador (type in coll. of Donald R. Dickey, now in the University of California at Los Angeles); Griscom, Amer. Mus. Nov., 379, p. 4, 1929—Nicaragua; Peters, Bds. World, 3, p. 131, 1937 (range); Dickey and van Rossem,

¹ *Oreopeleia linearis anthonyi* Griscom: Similar to *O. l. albifacies*, but occiput and nape brownish instead of gull gray; forehead more buffy, less white; foreneck and chest browner, lacking the buffy gray diffusion so characteristic of *albifacies*.

A single female from Volcan de Fuego is indeed darker, nearly wood brown on the anterior under parts, when compared to *albifacies*, but the nape is not more extensively reddish brown than in certain Mexican females. Recently, however, we have examined twenty specimens from Pacific Guatemala (Volcan de Fuego; El Rincon and Rio de la Cuesta, San Marcos; San Martín, Quezaltenango) and find the race fairly distinguishable. Three adults from the Sierra de las Minas seem to be nearer to *albifacies*.

² *Oreopeleia linearis silvestris* Dickey and van Rossem: Nearest to *O. l. anthonyi*, but more grayish, less reddish underneath; pectoral region between drab and light grayish olive; flanks and under tail coverts duller, wood brown rather than clay color; throat whiter, less buffy.

A very poor race. Five additional specimens from Nicaragua (Matagalpa, San Rafael del Norte) and one from Honduras (Danli) examined.

Field Mus. Nat. Hist., Zool. Ser., 23, p. 199, 1938—Volcan de Santa Ana and Los Esesmiles, El Salvador.

Geotrygon albifacies (not of Sclater) Salvin and Godman, Ibis, 1892, p. 328—Matagalpa, Nicaragua; Salvadori, Cat. Bds. Brit. Mus., 21, p. 581, 1893—part, spec. f', g', Matagalpa and San Rafael del Norte, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 3, p. 268, 1902—part, Honduras (Danli) and Nicaragua (Janli, Matagalpa, San Rafael del Norte).

Oreopeleia albifacies albifacies Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 493, 1916—part, Honduras (Danli) and Nicaragua (Ocotál, Janli, Matagalpa, Rio Coco, San Rafael del Norte, Peña Blanca).

Range.—Subtropical zone of El Salvador, Honduras, and western Nicaragua.

Field Museum Collection.—2: El Salvador (Volcan Santa Ana, 1); Nicaragua (San Rafael del Norte, Jinotega, 1).

Conover Collection.—12: Honduras (Las Penitas, Choluteca, 3; Alto Cantoral, Tegucigalpa, 3; Cantoral, Tegucigalpa, 1; Tegucigalpa, 1; San José, Santa Barbara, 1; La Libertad, Copan, 3).

****Oreopeleia linearis chiriquensis* (Sclater).¹ CHIRIQUÍ WHITE-FACED QUAIL DOVE.**

Geotrygon chiriquensis Sclater, Proc. Zool. Soc. Lond., 24, p. 143, 1856—David, Chiriquí, Panama (type in Paris Museum ex coll. of C. L. Bonaparte; cf. Sclater and Salvin, Exot. Orn., p. 123, 1868); Bonaparte, Compt. Rend. Acad. Sci. Paris, 43, No. 20, p. 943, Nov., 1856—"Jalapa," errore, = David, Chiriquí (descr.);² Salvin, Proc. Zool. Soc. Lond., 1867, p. 159—David; Sclater and Salvin, Exot. Orn., p. 77, 1867—part, Chiriquí; *idem*, l.c., p. 123, pl. 62, 1868—Chiriquí (David) and Veraguas (Castillo, Calovévora); Salvin, Proc. Zool. Soc. Lond., 1870, p. 217—Veraguas (Castillo, Calovévora, Calóbre) and Panama (Volcan de Chiriquí); Boucard, l.c., 1878, p. 43—Volcan de Irazú and La Candelaria, Costa Rica (habits); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 127, 1887—La Candelaria and El Zarcéro de Alajuéla, Costa Rica; Salvadori, Cat. Bds. Brit. Mus., 21, p. 579, 1893—Veraguas (Castillo, Calovévora) and Volcan de Chiriquí; Bangs, Proc. New Engl. Zool. Cl., 3, p. 24, 1902—Boquete and Volcan de

¹ *Oreopeleia linearis chiriquensis* (Sclater) is the most intensely colored member of the group by reason of its deep tawny pectoral area. Besides, it is easily recognized by having the whole pileum from the base of the bill to the nape slate gray. Still we believe there is little doubt that *chiriquensis* and the *albifacies* complex are merely geographic representatives of *O. linearis*. The Chiriquí Quail Dove has the black streak across the cheeks just as well marked as the last-named, and an approach to its deep tawny pectoral coloration is found in the orange-cinnamon wash on the anterior under parts of *O. l. infusca*.

Costa Rican birds are like others from Chiriquí (Boquete) and Veraguas (Castillo, Calovévora).

² Bonaparte gives a very good description of the present form (cf. "pileo plumbeo" and "subtus pure rufo-cinnamomea"), probably based on the type specimen formerly in his private collection, as we are told by Sclater and Salvin, but erroneously ascribes it to "Jalappa," Mexico.

Chiriquí, Panama; Salvin and Godman, *Biol. Centr.-Amer., Aves*, 3, p. 270, 1902—Costa Rica (Cervantes, El Zarcéro de Alajuela, La Candelaria, Volcan de Irazú, Tarrazú) and Panama (David, Boquete, Volcan de Chiriquí, Castillo, Calovévora); Bangs, *Proc. Biol. Soc. Wash.*, 22, p. 30, 1909—Cerro de Santa María, Costa Rica; Carriker, *Ann. Carnegie Mus.*, 6, p. 407, 1910—Costa Rica (La Estrella, Cerro de Santa María, Ujurrás de Térraba; nest and eggs descr.).

Geotrygon coeruleiceps Lawrence, *Ann. Lyc. Nat. Hist. N. Y.*, 9, p. 136, 1868—Cervantes, Costa Rica (type in U. S. National Museum); idem, *l.c.*, 9, p. 148, 1869 (crit.); Frantzius, *Journ. Orn.*, 17, p. 371, 1869—Cervantes; Salvin, *Ibis*, 1869, pp. 317, 319—Costa Rica (crit.).

Oreopeleia chiriquensis Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 7, p. 491, 1916—Costa Rica to Veraguas (monog.); Griscom, *Bull. Mus. Comp. Zool.*, 70, p. 312, 1935 (range); Peters, *Bds. World*, 3, p. 131, 1937 (range).

Range.—Subtropical zone of Costa Rica and the Pacific slope of western Panama, east to Veraguas.

Field Museum Collection.—1: Costa Rica (El Pózo, Puntarenas, 1).

Conover Collection.—2: Panama (Boquete, Chiriquí, 2).

****Oreopeleia linearis infusca* (Bangs).¹ DUSKY WHITE-FACED QUAIL DOVE.**

Geotrygon linearis infusca Bangs, *Proc. New Engl. Zool. Cl.*, 1, p. 108, 1900—Chiriquí, Santa Marta, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, *Bull. Mus. Comp. Zool.*, 70, p. 166, 1930); Allen, *Bull. Amer. Mus. N. H.*, 13, p. 128, 1900—Valparaiso, El Libano, and San Lorenzo, Colombia.

Geotrygon linearis (not *Columbi-Gallina linearis* Prévost) Bangs, *Proc. Biol. Soc. Wash.*, 12, p. 157, 1898—Pueblo Viejo.

Oreopeleia linearis infusca Todd and Carriker, *Ann. Carnegie Mus.*, 14, p. 189, 1922—El Libano, San Lorenzo, Las Vegas, Cincinnati, Las Taguas, and Pueblo Viejo (crit., habits); Peters, *Bds. World*, 3, p. 131, 1937 (range).

Range.—Subtropical zone of the Santa Marta region in northern Colombia.

Conover Collection.—1: Colombia, Santa Marta (Vista Nieve, 1).

****Oreopeleia linearis linearis* (Prévost). COLOMBIAN WHITE-FACED QUAIL DOVE.**

Columbi-Gallina linearis Prévost, in Knip, *Les Pigeons*, 2, livr. 11, p. 104, 1843—"dans la province de Santa-Fé-de-Bogotá," Colombia (type in Paris Museum).

¹ *Oreopeleia linearis infusca* (Bangs): Similar to *O. l. linearis*, but upper parts decidedly paler; the pileum cinnamon rather than walnut brown, the occiput lighter gray, the purplish tinge on the upper back somewhat paler, the lower back, wings, and tail less rufescent; the anterior under parts washed with orange cinnamon.

The few specimens examined fully bear out the characters of this form as established by Mr. Todd through the study of a large series from Santa Marta.

Columba linearis Knip, Les Pigeons, 2, livr. 11, pl. 55, 1843.

Geotrygon linearis Sclater, Proc. Zool. Soc. Lond., 23, p. 163, 1855—Bogotá; Bonaparte, Consp. Gen. Av., 2, p. 71, 1857—Santa-Fé-de-Bogotá (descr.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 782—upper wood region of Mérida; idem, l.c., 1879, p. 544—Santa Elena, Colombia; Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 285, 1890—"Porto Cabello," Venezuela; Salvadori, Cat. Bds. Brit. Mus., 21, p. 580, 1893—Colombia (Santa Elena, Bogotá, Anolaima).

Starnoenas linearis Schlegel, Mus. Pays-Bas, Columbæ, p. 164, 1873—Bogotá.

Geotrygon venezuelensis Salvadori, Cat. Bds. Brit. Mus., 21, p. 581 (after June 30), 1893—part, Mérida, Venezuela (type in British Museum examined).

Geotrygon linearis venezuelensis Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 160, 1912—Cumbre de Valencia, Carabobo, Venezuela (crit.).

Oreopeleia linearis linearis Chapman, Bull. Amer. Mus. N. H., 36, p. 215, 1917—Puerto Valdivia (lower Cauca), Andalucia (head of Magdalena Valley), Fusugasugá and Buena Vista (eastern Andes), Colombia (crit.); Peters, Bds. World, 3, p. 131, 1937 (range).

Oreopeleia linearis Osgood and Conover, Field Mus. Nat. Hist., Zool. Ser., 12, p. 38, 1922—Rio Mucujón, Sierra de Mérida, Páramo Tambor, and Páramo de Tamá, Venezuela (crit.).

Range.—Subtropical zone of Colombia (Santa Elena and Puerto Valdivia, Antioquia; eastern Andes) and western Venezuela (from Mérida to the Caracas region).¹

Field Museum Collection.—2: Colombia (Bogotá, 1; Páramo de Tamá, Santander del Norte, 1).

Conover Collection.—9: Venezuela, Mérida (Rio Mucujón, 4; Sierra de Mérida, 1; Páramo Tambor, 1; Cápas, 1; Valle, Rio Mucujón, 1; La Cuchilla, 1).

****Oreopeleia linearis trinitatis* (Hellmayr and Seilern).² TRINIDAD WHITE-FACED QUAIL DOVE.**

¹ Birds from Venezuela (*venezuelensis*) are not separable from those of Colombia, although some individuals have the rump and wings slightly more olivaceous.

Additional material examined.—Colombia: Bogotá, 7; Santa Elena, 1.—Venezuela: Valle, Mérida, 5; Culata, Mérida, 3; Carbonera, Mérida, 1; Cumbre de Valencia, Carabobo, 5; Silla de Caracas, 6; Galipán, Cerro del Avila, 2.

² *Oreopeleia linearis trinitatis* (Hellmayr and Seilern): Similar to *O. l. linearis*, but decidedly smaller, with considerably weaker legs and toes; hind neck cameo brown (instead of gray), just a little darker than the walnut brown nape; upper back anteriorly glossed with bronze-green; upper wing coverts and outer webs of remiges less rufescent, olive brown to cinnamon brown rather than Argus brown to auburn; flanks and under tail coverts paler, Sayal brown rather than cinnamon brown; under wing coverts less rufescent. Wing, 140–148, (female) 138–142; tail, 97–104, (female) 95–98; bill, 14½–16.

Independent comparison by the authors of Turumiquire specimens with others from Trinidad reveals the absolute identity of *pariae* and *trinitatis*. A

Geotrygon linearis trinitatis Hellmayr and Seilern, Bull. Brit. Orn. Cl., **31**, p. 13, 1912—Aripo, Trinidad (type in Munich Museum).

Peristera frenata(?) (not *Columba frenata* Tschudi) Jardine, Ann. Mag. Nat. Hist., **20**, p. 374, 1847—Tobago.

Geotrygon frenata (not *Columba frenata* Tschudi) Tristram, Cat. Coll. Bds. Tristram, p. 40, 1889—Tobago.

Peristera linearis (not *Columbi-Gallina linearis* Prévost) Léotaud, Ois. Trinidad, p. 373, 1866—mountains of Trinidad.

Geotrygon linearis Cory, Auk, **10**, p. 220, 1893—Tobago.

Geotrygon venezuelensis Salvadori, Cat. Bds. Brit. Mus., **21**, p. 581, 1893—part, Tobago; Cherrie, Sci. Bull., Mus. Brookl. Inst., **1**, p. 192, 1906—Aripo, Trinidad; idem, l.c., p. 370, 1908—Aripo.

Geotrygon sp. Hellmayr, Nov. Zool., **13**, p. 48, 1906—Trinidad (ex Léotaud).

Geotrygon pariae Chapman, Bull. Amer. Mus. N. H., **33**, p. 194, 1914—Cristóbal Colón, Paria Peninsula, Venezuela (type in the American Museum of Natural History, New York).

Geotrygon linearis pariae Chapman, Amer. Mus. Nov., **191**, p. 6, 1925—Neverí, Mount Turumiquire, Venezuela (crit.).

Oreopeleia linearis venezuelensis Roberts, Trop. Agric., **11**, p. 92, 1934—Trinidad; Belcher and Smooker, Ibis, 1936, p. 8—Morne Bleue, Trinidad (nest and eggs descr.).

Oreopeleia linearis pariae Peters, Bds. World, **3**, p. 132, 1937 (range).

Oreopeleia linearis trinitatis Peters, Bds. World, **3**, p. 132, 1937 (range).

Range.—Islands of Tobago and Trinidad, and northeastern Venezuela (in states of Sucre and Monagas).

Field Museum Collection.—5: Tobago (unspecified, 1); Venezuela (Mount Turumiquire, Sucre, 4).

Conover Collection.—2: Venezuela (San Rafael, near Cumanacoa, 2).

****Oreopeleia frenata frenata* (Tschudi). PERUVIAN QUAIL DOVE.**

Columba frenata Tschudi,¹ Arch. Naturg., **9**, (1), p. 386, 1843—"in sylvis Antium declivitatis orientalis," Peru, probably=Valley of Chanchamayo, Dept. Junín (type in Neuchâtel Museum; cf. Slater, Proc. Zool. Soc.

series from Tobago examined by Hellmayr is identical in coloration, but tends to have very slightly longer wings which vary from 143 to 148 against 140 to 144 in Trinidad. Birds from northwestern Venezuela (Caracas region to Mérida) have wings from 154–160, while the tail measures from 110 to 115, and the bill from 16 to 17 mm. All these figures refer to adult males. Females are constantly smaller: wing, (Tobago) 142–144, (Trinidad) 138–142, (Caracas region) 153–156.

In northeastern Venezuela and Trinidad this quail dove is hardly ever found below 1,800 feet, whereas in Tobago specimens have been obtained as low as 600 feet above sea level.

Additional material examined.—Tobago: Man o' War Bay, 9.—Trinidad: Aripo Range (alt. 1,800 to 2,000 ft.), 6.—Venezuela: Cristóbal Colón, Sucre, 1.

¹ We do not find that Temminck ever named a *Columba frenata*.

Lond., 1873, p. 783); idem, l.c., 10, (1), p. 306, 1844—Peru; idem, Unters. Faun. Peru., Orn., p. 278, pl. 28, 1846—eastern Peru.

Geotrygon frenata Bonaparte, Consp. Gen. Av., 2, p. 71, 1857—Peru (descr.); Selater, Proc. Zool. Soc. Lond., 1873, pp. 780, 783—Huasampilla, Dept. Cuzco, Peru (crit.); Taczanowski, l.c., 1874, p. 556—Amable María and Auquimarca, Peru; Selater and Salvin, l.c., 1879, p. 640—Simacu, Yuyo, and Tilotilo, Bolivia; Taczanowski, Orn. Pér., 3, p. 257, 1886—Peru (Huasampilla, Amable María, Auquimarca); Salvadori, Cat. Bds. Brit. Mus., 21, p. 578, 1893—Peru (Huasampilla) and Bolivia (Simacu, Tilotilo, Yuyo); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1902, (2), p. 44—La Merced and La Gloria, Chanchamayo, Peru; idem, Ornith., 13, pp. 100, 125, 1906—Idma, Urubamba, and Huaynapata, Marcapata, Peru.

Oreopeleia frenata Chapman, Bull. U. S. Nat. Mus., 117, p. 47, 1921—Rio San Miguel, Urubamba, Peru.

Oreopelia bourcierii frenata Peters, Bds. World, 3, p. 132, 1937 (range).

Range.—Subtropical zone of northern Bolivia (depts. of Cochabamba and La Paz) and southern Peru (north to Junín).¹

Conover Collection.—4: Bolivia (Incachaca, Cochabamba, 4).

***Oreopeleia frenata subgrisea* (Chapman).² ALAMOR QUAIL DOVE.**

Oreopelia bourcierii subgrisea Chapman, Amer. Mus. Nov., 31, p. 2, 1922—Alamor, Prov. Loja, Ecuador (type in the American Museum of Natural History, New York).

Oreopeleia bourcierii subgrisea Chapman, Bull. Amer. Mus. N. H., 55, p. 173, 1926—Alamor and Celica, Ecuador; Peters, Bds. World, 3, p. 132, 1937—southwestern Ecuador.

Geotrygon frenata (not *Columba frenata* Tschudi) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 213—Cutervo, Peru.

Geotrygon bourcierii (not of Bonaparte) Taczanowski, Orn. Pér., 3, p. 259, 1886—Cutervo, Tambillo, and Coccochó, Peru.

Range.—Subtropical zone of southwestern Ecuador (in Province of Loja) and northwestern Peru (Cutervo, Tambillo, Coccochó, and Leimabamba, Marañón Valley).

****Oreopeleia frenata bourcierii* (Bonaparte). BOURCIER'S QUAIL DOVE.**

Geotrygon bourcierii Bonaparte, Compt. Rend. Acad. Sci. Paris, 40, No. 3, p. 101, Jan., 1855—Valley of Lloa, Ecuador (type in Paris Museum); idem, Consp. Gen. Av., 2, p. 71, 1857—Lloa, Ecuador; Selater, Proc. Zool.

¹ Birds from Bolivia (San Antonio, La Paz) do not materially differ from others taken in southern Peru (Idma, Urubamba; La Merced, Chanchamayo).

² *Oreopeleia frenata subgrisea* (Chapman): Similar above to *O. f. bourcierii*, viz. with top of head plain slate gray (not vinaceous-gray to cameo brown as in *frenata*), but forehead decidedly paler, nearly whitish, and breast much lighter, drab gray to light drab instead of hair brown. In other words, this form, except for the

Soc. Lond., 28, p. 72, 1860—Pallatanga, Ecuador; idem and Salvin, Exot. Orn., p. 79, 1867—part, Lloa and Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 312—La Unión, Ecuador; idem, l.c., 1885, p. 111—Machay, Baños, and San Rafael, Ecuador; Heine and Reichenow, Nomencl. Mus. Orn. Hein., p. 285, 1890—Pallatanga; Salvadori, Cat. Bds. Brit. Mus., 21, p. 577, 1893—San José and Monji, Ecuador; Hartert, Nov. Zool., 5, p. 504, 1898—Paramba, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 15, No. 368, p. 37, 1900—Gualea and San José, Ecuador; Hartert, Nov. Zool., 9, p. 603, 1902—Paramba; Goodfellow, Ibis, 1902, p. 228—below Baeza, Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1206—Pueblo Rico, San Juan slopes, western Andes, Colombia.

Oreopeleia bourcieri Chapman, Bull. Amer. Mus. N. H., 36, p. 214, 1917—Salencio, San Antonio, La Florida, Cocal, Cerro Munchique, Gallera, Almaguer, Miraflores, El Roble, Laguneta, and La Candela, western and central Andes of Colombia (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 19, 1922—Piganta (Mojanda) and Alonguiche, Ecuador.

Geotrygon bourcieri baeza Chubb, Bull. Brit. Orn. Cl., 38, p. 33, 1917—Baeza, eastern Ecuador (type in the British Museum examined); idem, Ibis, 1919, p. 47—Baeza.

Geotrygon bourcieri bourcieri Chubb, Ibis, 1919, p. 46—Mindó and Cangunana, Ecuador.

Oreopeleia bourcieri bourcieri Chapman, Bull. Amer. Mus. N. H., 55, p. 172, 1926—Pagma (near Chunchi), Piganta (Mojanda Mountains), Sinche, near Mindó, Zaruma, Zamora, Sabanilla, Baeza, and Sumaco, Ecuador (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 621, 1932—El Portete de Tarquí, Ecuador; Peters, Bds. World, 3, p. 132, 1937 (range).

Range.—Subtropical zone of Ecuador (except southwestern section) and central and western Andes of Colombia.¹

Field Museum Collection.—1: Colombia (San Antonio, Valle de Cauca, 1).

Conover Collection.—26: Colombia, Cauca, El Tambo (La Costa, 2; Munchique, 4); Ecuador (Chical, 3; Taguaquiri, 2; Ramos-Urco, 1; San Cadoo-Mindó, Pichincha, 1; Montes Anagumba, Imbabura, 4;

lighter forehead, resembles *bourcieri* on the upper, and *frenata* on the under parts, and tends to show that these two ground doves are conspecific.

Material examined.—Peru: Leimabamba, 2.

¹ On comparing specimens from the western Andes of Colombia and both slopes of Ecuador, Hellmayr does not notice any other than individual variations, and finds himself in agreement with Chapman, who, on the basis of much more extensive material, also denies the possibility of maintaining *baeza*. Birds from the Rio Zamora are, according to this author, inseparable from western examples, while a series from Zaruma forms the transition to *subgrisea*.

The occurrence of *O. l. linearis* at Santa Elena and Puerto Valdivia, as recorded by Chapman, obliges us to regard the *O. frenata* complex as specifically distinct from *O. linearis*, though further researches may yet show that representatives of the two groups do not actually breed together.

Pacto, Pichincha, 1; Cerro San José, Pichincha, 1; head of Rio Tigre, 1; Paramba, Imbabura, 1; Monte Chuga, Imbabura, 1; Gualea, Tulipe, 1; Chimiplayas, 1; Condeja, 1; Baeza, 1).

Oreopeleia (frenata?) erythropareia (Salvadori).¹ SALVADORI'S QUAIL DOVE.

Geotrygon erythropareia Salvadori,² Cat. Bds. Brit. Mus., 21, p. 578, 1893—Jima and Rosario, Ecuador (type, from "Ecuador," in British Museum).

Geotrygon bourcieri (not of Bonaparte) Sclater and Salvin, Exot. Orn., p. 79, pl. 40, 1867—Ecuador (in part).

Oreopeleia erythropareia Chapman, Bull. Amer. Mus. N. H., 55, p. 173, 1926—Jima and Rosario (crit.); Peters, Bds. World, 3, p. 132, 1937 (range).

Range.—Subtropical zone of eastern Ecuador (Jima; Rosario).

Genus STARNOENAS Bonaparte

Starnoenas Bonaparte, Geog. and Comp. List Bds. Eur. and N. Amer., p. 41, 1838—type, by monotypy, *Columba cyanocephala* Linnaeus.

Starnaenas G. R. Gray, Gen. Bds., 2, p. 479, 1845 (emendation).

Sternoenas Reichenbach, Av. Syst. Nat., p. xxv, 1852 (emendation).

Perdicopelia Van der Hoeven, Handb. Dierk., 2nd ed., 2, p. 680, 1855—new name for *Starnoenas* Bonaparte.

¹ *Oreopeleia (frenata?) erythropareia* (Salvadori), known from three specimens in the British Museum, is of very doubtful status. According to Chapman, it differs from *O. f. bourcieri* in having the under tail coverts, as well as the flanks, deep snuff brown; the breast strongly suffused with the same color; the frontal, malar, and nuchal regions kaiser brown; the crown darker; the whole lower back, upper tail coverts, secondaries, and wing coverts more rufescent. Judging from the figure in "Exotic Ornithology," where the specimen which subsequently became the type of *G. erythropareia* is depicted, it is altogether a darker and more rufescent bird than the ordinary style of *O. f. bourcieri*, though the divergencies do not strike one as being specific. The type was acquired from Verreaux in 1855, and probably originated in the Napo region whence collections were being received by this naturalist at that period. A second adult in the British Museum, sent by Clarence Buckley, is labeled "Jima," a place on the Amazonian slope of Ecuador southeast of Cuenca. Since Buckley's localities are all subject to uncertainty, the origin of the two only known adults is more or less shrouded in obscurity. This, taken in conjunction with the fact that authentically collected specimens from the regions to the north and south of Jimá in eastern Ecuador prove to be inseparable from *bourcieri*, is apt to cast serious doubts on the existence of a distinct form in the heart of the range on the eastern slope of the Ecuadorian Andes.

Hellmayr has since compared the two skins with a good series of *bourcieri* from Ecuador, and can but corroborate Chapman's statement quoted above. They are certainly very much darker and are not approached by any one of the fifteen specimens available for comparison.

Material examined.—Ecuador: Jimá, 1; unspecified, 1 (the type).

² *Peristera erythropareia* G. R. Gray (List Spec. Bds. Brit. Mus., 4, p. 56, 1856) is a nomen nudum.

****Starnoenas cyanocephala* (Linnaeus). BLUE-HEADED QUAIL DOVE.**

Columba cyanocephala Linnaeus, Syst. Nat., 10th ed., 1, p. 163, 1758—based on "The Turtle-Dove from Jamaica" Albin, Nat. Hist. Bds., 2, p. 45, pl. 49; Jamaica.

Columba tetraoides Scopoli, Ann. I. Hist. Nat., p. 125, 1769—based on an aviary bird of unknown origin.

Starnoenas cyanocephala Gosse, Bds. Jam., p. 324, 1847—Jamaica (introduced from Cuba?); Gundlach, Journ. Orn., 4, p. 108, 1856—Cuba; idem, l.c., 22, p. 291, 1874—Cuba (habits); Schlegel, Mus. Pays-Bas, Columbae, p. 166, 1873—Cuba; Cory, Auk, 4, p. 120, 1887—Cuba (descr.); idem, Bds. W. Ind., p. 221, 1889—Cuba; idem, Cat. W. Ind. Bds., p. 98, 1892—Cuba; Scott, Auk, 9, p. 125, 1892—Jamaica (introduced from Cuba?); Salvadori, Cat. Bds. Brit. Mus., 21, p. 613, 1893—Cuba; Bangs and Zappey, Amer. Natur., 39, p. 199, 1905—Caballo Mountains, Isle of Pines (hearsay); Ridgway, Bull. U. S. Nat. Mus., 50, Part 7, p. 497, 1916 (monog.); Todd, Ann. Carnegie Mus., 10, p. 220, 1916—Isle of Pines (one record, Aug. 26, 1909); Barbour, Mem. Nutt. Orn. Cl., 6, p. 72, 1923—Cuba; Peters, Bds. World, 3, p. 138, 1937 (range).

Range.—Islands of Cuba and Isle of Pines (one record), formerly Jamaica (probably introduced from Cuba), Greater Antilles.¹

Field Museum Collection.—13: Cuba (unspecified, 5; Havana, Havana District, 2; near Palacios, Pinar del Rio, 6).

Conover Collection.—4: Cuba (Vertientes, Camaguey, 1; Los Palacios, Pinar del Rio, 1; Minas, Havana, 2).

¹ Audubon's record from the Florida keys is regarded as unsatisfactory. Cf. Check List N. Amer. Bds., 4th ed., p. 371, 1931.

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